# **APPENDIX A Boring Logs/Well Construction Diagrams**

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# **ACRONYMS AND ABBREVIATIONS**

2-NT 2-nitrotoluene

2A-DNT 2-amino-4,6-dinitrotoluene 2,4-DANT 2,4-diamino-6-nitrotoluene

2,6-DNT 2,6-dinitrotoluene

bgs below ground surface

DP drivepoint

ft feet

HMX octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine

MMR Massachusetts Military Reservation

msl mean sea level

MTBE methyl tert-butyl ether

MW monitoring well
PCE tetrachloroethene

RDX hexahydro-1,3,5-trinitro-1,3,5-triazine

VOC volatile organic compound

Impact Area Groundwater Study Program

Draft J-2 Range Groundwater Remedial Investigation and Feasibility Study

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#### 1.0 DRILLING AND WELL INSTALLATION

During the J-2 groundwater investigation outlined in the *Final J-2 Range Supplemental Groundwater Workplan for the Camp Edwards Impact Area Groundwater Study Program* [AMEC. 2003 (December) Massachusetts Military Reservation, Cape Cod, Massachusetts. AMEC Internal Tracking No. MMR-8139. Westford, MA.] numerous drilling locations were revised and 35 drilling locations were added. During the beginning of the investigation some of the monitoring well (MW) locations proposed in the workplan varied slightly for constructability and/or access reasons. As the investigation progressed drilling locations were revised from locations outlined in the workplan or were added based on results from groundwater profile samples collected during the investigation, revised particle tracking, and revised fate and transport modeling conducted during the investigation. All of the changes to the drilling program were conducted with full concurrence of the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP).

The following discussion of MW and drivepoint (DP)/microwell installation is presented in chronological order based on the date drilling was completed at each location. The MWs and DPs installed as part of this investigation are shown in Figure 2-1. The MWs are summarized in Table 2-1. These wells supplement the other 65 wells that make up the suite of wells used to characterize the J-2 Range plumes as part of this investigation.

#### J2P-20 (MW-289)

Location J2P-20, designated MW-289 upon commencement of drilling (August 2003), was installed downgradient of Disposal Area 2, as proposed in the workplan, to evaluate the downgradient extent of contamination migrating from Disposal Area 2. MW-289 was located in a body of contamination which would be later identified as the J-2 North plume. MW-289 was drilled to 346 feet (ft) below ground surface (bgs). Perchlorate, hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) were detected in the profile samples. Three well screens were installed at this location. MW-289M1 (–135 to –145 ft mean sea level [msl]; 305 to 315 ft bgs) was installed approximately 31 ft above bedrock and just above a hydrostratigraphic unit of low hydraulic conductivity. MW-289M2 (7 to –3 ft msl; 162 to

172 ft bgs) was installed to intersect the maximum perchlorate and RDX detections observed in the profile samples. MW-289S (65 to 55 ft msl; 105 to 115 ft bgs) was installed to intersect the top of the groundwater column and provide a water table monitoring point.

## J2P-18 (MW-292)

Location J2P-18, designated MW-292 upon commencement of drilling (September 2003), was installed downgradient of Disposal Area 2 and along a forward particle track from MW-130 and MW-234, as proposed in the workplan. MW-292 was located in a body of contamination which would be later identified as the J-2 North plume. MW-292 was drilled to 330 ft bgs. Perchlorate and explosives, including RDX and HMX, were detected in the profile samples. Two well screens were installed at this location. MW-292M1 (-119 to -129 ft msl; 282 to 292 ft bgs) was installed approximately 34 ft above bedrock and just above a hydrostratigraphic unit of low hydraulic conductivity to intersect the deep detection of perchlorate observed in profile samples. MW-292M2 (8 to -2 ft msl; 155 to 165 ft bgs) was installed to intersect the highest perchlorate detection within the upper groundwater column and to coincide with the elevation of the maximum perchlorate detection from cross-gradient location MW-289.

#### J2P-29 (MW-293)

Location J2P-29, designated MW-293 upon commencement of drilling (October 2003), was installed downgradient of MW-289 (J-2 North plume). MW-293 was drilled to 344 ft bgs. Perchlorate, RDX, and 2,6-dinitrotoluene (2,6-DNT) were detected in the profile samples. Three well screens were installed at this location. MW-293M1 (–123 to –133 ft msl; 296 to 306 ft bgs) was installed just above a hydrostratigraphic unit of low hydraulic conductivity to intersect the deep detection of perchlorate and explosives. MW-293M2 (–23 to –33 ft msl; 196 to 206 ft bgs) was installed to intersect the co-located maximum perchlorate and RDX detection in the profile samples. MW-293S (64 to 54 ft msl; 110 to 120 ft bgs) was installed to intersect the detection of perchlorate observed at the water table.

## J2P-30 (MW-296)

Location J2P-30, designated MW-296 upon commencement of drilling (November 2003), was installed downgradient of MW-289 and MW-293 (near the boundary of the J-2 North plume). MW-296 was drilled to 346 ft bgs. No perchlorate or explosives were detected in the profile samples. At the time of profiling, the downgradient extent and depth of the J-2 North plume in the vicinity of MW-296 was unknown. Two well screens were installed at this location following receipt of the results of profiling at cross-gradient location MW-313 a number of months later (February 2004). MW-296M1 (–69 to –79 ft msl; 255 to 265 ft bgs) was installed at the model-predicted elevation where perchlorate detected upgradient along Wood Road is predicted to occur in the future. MW-296M2 (-29 to –39 ft msl; 215 to 225 ft bgs) was installed at the same elevation where the highest perchlorate detection was observed in cross-gradient location MW-313.

# J2P-31 (MW-300)

Location J2P-31, designated MW-300 upon commencement of drilling (November 2003), was installed downgradient of MW-289 and east of MW-293 to define the lateral extent of the core of the plume (later known as the J-2 North plume) along Wood Road. MW-300 was drilled to 340 ft bgs. Perchlorate and RDX were detected in the profile samples. Three well screens were installed at this location. MW-300M1 (–122 to –132 ft msl; 293 to 303 ft bgs) was installed at the same elevation of deep perchlorate detection observed at MW-293 to the west. MW-300M2 (–26 to –36 ft msl; 197 to 207 ft bgs) was installed to intersect the location of the maximum perchlorate detection in the profile samples. MW-300M3 (36 to 26 ft msl; 135 to 145 ft bgs) was installed to intersect the shallowest of the RDX detections, providing an upper bound to the RDX contamination.

#### J2P-32 (MW-302)

Location J2P-32, designated MW-302 upon commencement of drilling (December 2003), was installed downgradient of MW-289 and west of MW-293 to define the lateral extent of the core of the J-2 North plume along Wood Road. MW-302 was drilled to 339 ft bgs. Perchlorate and RDX were detected in the profile samples. Two well screens were

installed at this location. MW-302M1 (-123 to -133 ft msl; 300 to 310 ft bgs) was installed at the same elevation of deep perchlorate detection at MW-293 cross-gradient to the east. MW-302M2 (-17 to -27 ft msl; 194 to 204 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples.

## J2P-33 (MW-305)

Location J2P-33, designated MW-305 upon commencement of drilling (December 2003), was installed downgradient of MW-289 and east of MW-300 to define the lateral extent of the J-2 North plume along Wood Road. MW-305 was drilled to 338 ft bgs. Perchlorate and RDX were detected in the profile samples. One well screen was installed at this location. MW-305M1 (–25 to –35 ft msl; 203 to 213 ft bgs) was installed to intersect both the highest perchlorate detection at the bottom of the 10 ft screen and the second highest perchlorate detection at the top of the screen.

## J2P-28 (MW-307)

Location J2P-28, designated MW-307 upon commencement of drilling (January 2004), was installed within the source area (later identified as the upgradient area of the J-2 East plume) between MW-120 and MW-228, as proposed in the workplan. MW-307 was drilled to 331 ft bgs. Perchlorate, RDX, 2-nitrotoluene (2-NT), and volatile organic compounds (VOCs) (acetone, 2-butanone, toluene, chloroform, chloromethane) were detected in the profile samples. Three well screens were installed at this location. MW-307M1 (–123 to –133 ft msl; 296 to 306 ft bgs) was installed approximately 25 ft above bedrock to intersect the deep perchlorate and explosives detections. MW-307M2 (–59 to –69 ft msl; 232 to 242 ft bgs) was installed to intersect two perchlorate detections at the top and bottom of the screen. MW-307M3 (47 to 37 ft msl; 126 to 136 ft bgs) was installed to intersect the highest perchlorate detection in the profile samples, as well as the uppermost RDX detection.

# J2P-22 (MW-310)

Location J2P-22, designated MW-310 upon commencement of drilling (February 2004), was installed based on reverse particle tracks from MW-215 (J-2 East plume). MW-310

was drilled to 320 ft bgs. Perchlorate, RDX, HMX, and nitrobenzene were detected in the profile samples. One well screen was installed at this location (MW-310M1 –19 to -29 ft msl; 171 to 181 ft bgs) to intersect the maximum perchlorate detection and collocated RDX and HMX detections.

# J2P-34 (MW-313)

Location J2P-34, designated MW-313 upon commencement of drilling (February 2004), was installed downgradient of MW-293 and MW-300 to determine the downgradient extent of contamination (J-2 North plume). MW-313 was drilled to 337 ft bgs. Perchlorate and RDX were detected in the profile samples. Three well screens were installed at this location. MW-313M1 (–69 to –79 ft msl; 255 to 265 ft bgs) was installed at the model-predicted depth where upgradient contamination is predicted to occur in the future. MW-313M2 (–29 to –39 ft msl; 216 to 226 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples. MW-313M3 (–9 to –19 ft msl; 195 to 205 ft bgs) was installed to intersect the lone RDX detection in the profile samples.

#### <u>J2P-35 (MW-318)</u>

Location J2P-35, designated MW-318 upon commencement of drilling (February 2004), was installed downgradient of MW-300 and MW-305 to determine the eastern boundary of the J-2 North plume at Jefferson Road. MW-318 was drilled to 338 ft bgs. RDX, 2,6-DNT, and 4-nitrotoluene were detected in the profile samples. Three well screens were installed at this location following receipt of profiling results from MW-322. MW-318M1 (–120 to –130 ft msl; 306 to 316 ft bgs) was installed to intersect the deep explosives detection and to coincide with a forward particle track from MW-322 where perchlorate was detected. MW-318M2 (–20 to –30 ft msl; 206 to 216 ft bgs) was installed to intersect the RDX detection. A water table well, MW-318S (65 to 55 ft msl; 121 to 131 ft bgs) was installed to collect head data at the water table.

## J2P-21 (MW-319)

Location J2P-21, designated MW-319 upon commencement of drilling (February 2004), was installed downgradient of MW-158, as proposed in the workplan in an area later identified as the J-2 East plume. MW-319 was drilled to 324 ft bgs. Perchlorate and RDX were detected in the profile samples. Three well screens were installed at this location. MW-319M1 (–40 to –50 ft msl; 200 to 210 ft bgs) was installed to intersect the maximum perchlorate detections in the profile samples. MW-319M2 (–5 to –15 ft msl; 165 to 175 ft bgs) was installed to intersect the next-highest perchlorate detection in this profile. A water table well, MW-319S (68 to 58 ft msl; 93 to 103 ft bgs) was installed to collect head data at the water table.

# J2P-24 (MW-321)

Location J2P-24, designated MW-321 upon commencement of drilling (March 2004), was installed in the J-2 East plume on an updated forward particle track from MW-228, roughly 1500 ft west of the location proposed in the workplan. MW-321 was drilled to 312 ft bgs. Perchlorate, RDX, HMX, and VOCs were detected in the profile samples. Two well screens were installed at this location. MW-321M1 (–1 to –11 ft msl; 175 to 185 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples. MW-321M2 (18 to 8 ft msl; 156 to 166 ft bgs) was installed to intersect the maximum RDX and HMX detections in the profile samples.

#### J2P-36 (MW-322)

Location J2P-36, designated MW-322 upon commencement of drilling (March 2004), was installed downgradient of MW-292 and east of MW-305 as part of the Wood Road fence to determine the eastern extent of the J-2 North plume along Wood Road. MW-322 was drilled to 336 ft bgs. Perchlorate and RDX were detected in the profile samples. Two well screens were installed at this location. MW-322M1 (–63 to –73 ft msl; 246 to 256 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples and bridge the RDX detects seen in the profile samples. A water table well, MW-322S (64 to 54 ft msl; 119 to 129 ft bgs) was installed to collect head data at the water table.

## J2P-23 (MW-324)

Location J2P-23, designated MW-324 upon commencement of drilling (March 2004), was installed on a forward particle track from MW-215 to determine the downgradient extent of the J-2 East plume. MW-324 was drilled to 349 ft bgs. Perchlorate, RDX, HMX, and 2,6-DNT were detected in the profile samples. Two well screens were installed at this location. MW-324M1 (–61 to –71 ft msl; 235 to 245 ft bgs) was installed to intersect the deepest detections of perchlorate and RDX. MW-324M2 (–31 to –41 ft msl; 205 to 215 ft bgs) was installed to intersect the maximum detections of perchlorate, RDX, and HMX in the profile samples.

## J2P-38 (MW-327)

Location J2P-38, designated MW-327 upon commencement of drilling (April 2004), was installed on a forward track from MW-313 to determine the downgradient extent of the J-2 North plume. MW-327 was drilled to 338 ft bgs. Perchlorate, RDX and other explosives were detected in the profile samples. Three well screens were installed at this location. MW-327M1 (–121 to –131 ft msl; 296 to 306 ft bgs) was installed to intersect the deep detections of perchlorate and RDX. MW-327M2 (–90 to –100 ft msl; 265 to 275 ft bgs) was installed to intersect other explosives detections. MW-327M3 (-45 to –55 ft msl; 220 to 230 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples.

#### J2P-37 (MW-330)

Location J2P-37, designated MW-330 upon commencement of drilling (April 2004), was installed on a forward track from MW-313 to determine the downgradient extent of the J-2 North plume. MW-330 was drilled to 334 ft bgs. 2,6-DNT was detected in the profile samples. Three well screens were installed at this location. MW-330M1 (–125 to –135 ft msl; 313 to 323 ft bgs) was installed where modeling predicts deep perchlorate detected in the upgradient MW-327 profile samples may occur in the future. MW-330M2 (–50 to –60 ft msl; 238 to 248 ft bgs) was installed where modeling predicts mid-depth perchlorate detected in the upgradient MW-327 profile samples may occur in the future.

MW-330M3 (-33 to -23 ft msl; 155 to 165 ft bgs) was installed to intersect the 2,6-DNT detection.

## J2P-40 (MW-331)

Location J2P-40, designated MW-331 upon commencement of drilling (Mary 2004), was installed downgradient of MW-289 west of MW-302 to define the western boundary of the J-2 North plume along Wood Road. MW-331 was drilled to 345 ft bgs. Perchlorate was detected in the profile samples. Two well screens were installed at this location. MW-331M1 (–55 to –65 ft msl; 235 to 245 ft bgs) was installed to intersect the highest perchlorate detection in the profile samples (0.45J micrograms per liter [µg/L]). This sample was a field duplicate and the associated native sample was non-detect. MW-331M2 (–15 to –25 ft msl; 195 to 205 ft bgs) was installed at the same elevation of the aquifer where the highest perchlorate concentrations were found in cross-gradient wells MW-302 and MW-293.

#### J2P-27 (MW-334)

Location J2P-27, designated MW-334 upon commencement of drilling (May 2004), was installed downgradient of MW-215 and MW-310 on a forward particle track from MW-310 to determine the downgradient extent of the J-2 East plume. MW-334 was drilled to 326 ft bgs. Perchlorate and 2-NT were detected in the profile samples. Two well screens were installed at this location. MW-334M1 (–113 to –123 ft msl; 285 to 295 ft bgs) was installed to intersect the perchlorate detection in the profile samples. MW-334M2 (7 to -3 ft msl; 165 to 175 ft bgs) was installed to intersect the 2-NT detection in the profile samples as well as correspond to the elevation of contaminants detected in upgradient wells MW-310 and MW-215.

#### J2P-26 (MW-335)

Location J2P-26, designated MW-335 upon commencement of drilling (June 2004), was installed downgradient of MW-321 on Wood Road between MW-322 and MW-324 (MW-381, which is situated east of MW-322, had not yet been drilled) to further define the lateral extent of contamination in the J-2 East plume. MW-335 was drilled to 347 ft bgs.

Perchlorate and 2,6-DNT were detected in the profile samples. Three well screens were installed at this location. MW-335M1 (–78 to –88 ft msl; 255 to 265 ft bgs) was installed to intersect the deep perchlorate detection from the profile samples. MW-335M2 (–38 to –48 ft msl; 215 to 225 ft bgs) was installed to intersect the upper perchlorate detection from the profile samples. MW-335M3 (58 to 48 ft msl; 120 to 130 ft bgs) was installed to intersect the 2,6-DNT detections.

# J2P-25 (MW-336)

Location J2P-25, designated MW-336 upon commencement of drilling (June 2004), was installed south of MW-319, downgradient of J-2 Range and a flow divide predicted by the groundwater model (south of and cross-gradient to the southern edge of the J-2 East plume). MW-336 was drilled to 323 ft bgs. 2-NT, 2,4-diamino-6-nitrotoluene (2,4-DANT), and VOCs were detected in the profile samples. Two well screens were installed at this location. MW-336D (–151 to –161 ft msl; 310 to 320 ft bgs) was installed approximately 1 ft above bedrock to intersect deep detections of explosives and VOCs in the profile samples. MW-336M1 (34 to 24 ft msl; 125 to 135 ft bgs) was installed to correspond to the elevation where perchlorate was previously detected in MW-158.

#### J2P-39 (MW-337)

Location J2P-39, designated MW-337 upon commencement of drilling (June 2004), was installed southwest of MW-327, to determine the western extent of the leading edge of the J-2 North plume. MW-337 was drilled to 322 ft bgs. No perchlorate or explosives were detected in the profile samples. Two well screens were installed at this location. MW-337D (-121 to -131 ft msl; 310 to 320 ft bgs) was installed approximately 2 ft above bedrock to correspond with the elevation of deep perchlorate detection at MW-327. MW-337M1 (-54 to -64 ft msl; 244 to 254 ft bgs) was installed at the approximate elevation where a forward particle track from the maximum perchlorate detection at MW-313 could potentially occur in the future. The M1 screen elevation is also at a similar elevation as the maximum detection of perchlorate in the profile samples of MW-327.

## J2P-19 (MW-339)

Location J2P-19, designated MW-339 upon commencement of drilling (June 2004), was installed on a downgradient (forward) particle track from MW-307 in the J-2 East Plume. MW-339 was drilled to 328 ft bgs. Perchlorate, RDX, and 2-NT were detected in the profile samples. Two well screens were installed at this location. MW-339M1 (–64 to -74 ft msl; 233 to 243 ft bgs) was installed to intersect the maximum and deepest perchlorate detections in the profile samples. MW-339M2 (–44 to –54 ft msl; 213 to 223 ft bgs) was installed to intersect the uppermost RDX detection.

#### J2P-42 (MW-340)

Location J2P-42, designated MW-340 upon commencement of drilling (June 2004), was installed downgradient of MW-327, MW-337 and the leading edge of the J-2 North plume. MW-340 was drilled to 348 ft bgs. 2,6-DNT, 2-amino-4,6-dinitrotolue (2A-DNT), and 2,4-DANT were detected in the profile samples. Three well screens were installed at this location. MW-340D (–131 to –141 ft msl; 330 to 340 ft bgs) was installed approximately 8 ft above bedrock at the elevation where deep perchlorate detected at MW-327 is projected by modeling to occur in the future. MW-340M1 (–57 to –67 ft msl; 256 to 266 ft bgs) was installed where mid-depth perchlorate detected at MW-327 is predicted by modeling to occur in the future. MW-340M2 (–16 to –26 ft msl; 215 to 225 ft bgs) was installed to coincide with the detection of 2A-DNT.

#### J2P-41 (MW-342)

Location J2P-41, designated MW-342 upon commencement of drilling (July 2004), was installed to determine the southern extent of perchlorate detected at MW-319 in the J-2 East Plume. MW-342 was drilled to 317 ft bgs. 2-NT and VOCs were detected in the profile samples. Three well screens were installed at this location. MW-342M1 (-44 to -54 ft msl; 194 to 204 ft bgs) was installed to correspond with maximum perchlorate detections at cross-gradient location MW-319. MW-342M2 (-14 to -24 ft msl; 164 to 174 ft bgs) was installed to correspond to cross-gradient perchlorate detections at MW-319. MW-342S (64 to 54 ft msl; 86 to 96 ft bgs) was installed downgradient of water table detections at MW-158S.

# J2P-43 (MW-345)

Location J2P-43, designated MW-345 upon commencement of drilling (August 2004), was installed downgradient of the leading edge of the J-2 North plume and east of MW-330 and MW-340. MW-345 was drilled to 357 ft bgs. No perchlorate or explosives were detected in the profile samples. Two well screens were installed at this location. MW-345M1 (–126 to –136 ft msl; 312 to 322 ft bgs) was installed at the same elevation as cross-gradient screens in MW-330 and MW-340 to coincide with the projected path of low level detects in profile samples from upgradient location MW-327. Similarly, MW-345M2 (–51 to –61 ft msl; 237 to 247 ft bgs) was installed at the same elevation as corresponding screens in MW-330 and MW-340 and within the projected path of detections from the profile samples collected at MW-327.

## J2P-44 (MW-348)

Location J2P-44, designated MW-348 upon commencement of drilling (August 2004), was installed downgradient of MW-293 and MW-300 in the center of the J-2 North plume. MW-348 was drilled to 350 ft bgs. Perchlorate was detected in the profile samples, explosives were not detected in any of the profile samples. Two well screens were installed at this location. MW-348M1 (–108 to –118 ft msl; 289 to 299 ft bgs) was installed just above a hydrostratigraphic unit of low hydraulic conductivity where the projected path of deep perchlorate detections from upgradient well MW-289 are modeled to occur. MW-348M2 (–26 to –36 ft msl; 207 to 217 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples. A piezometer, PZ-348 (67 to 57 ft msl, 114 to 124 ft bgs), was installed at this location to collect head data at the water table.

#### <u>J2P-46 (MW-351)</u>

Location J2P-46, designated MW-351 upon commencement of drilling (September 2004), was installed downgradient of MW-335 and MW-339 to determine the downgradient extent of the J-2 East plume. MW-351 was drilled to 331 ft bgs. RDX and 2,6-DNT were detected in the profile samples. Perchlorate was not detected in any of the profile samples. Two well screens were installed at this location. MW-351M1 (–119

to -129 ft msl; 279 to 289 ft bgs) was installed to intersect the model-predicted path of contamination from upgradient wells MW-335 and MW-339. MW-351M2 (-74 to -84 ft msl; 234 to 244 ft bgs) was installed to intersect the maximum RDX detection in the profile samples.

## J2P-45 (MW-354)

Location J2P-45, designated MW-354 upon commencement of drilling (September 2004), was installed on a forward particle track from MW-324 to determine the downgradient extent of the J-2 East plume. MW-354 was drilled to 340 ft bgs. No perchlorate or explosives were detected in the profile samples. Two well screens were installed at this location. MW-354M1 (–100 to –110 ft msl; 275 to 285 ft bgs) was installed at the model-predicted depth where future contamination from upgradient wells MW-215, MW-310 and MW-324 is projected to occur, and is at a similar elevation to detections from cross-gradient well MW-334. MW-354M2 (–60 to –70 ft msl; 235 to 245 ft bgs) was installed to correspond with the elevation of profile detections in cross-gradient well MW-351.

#### <u>J2P-47 (MW-355)</u>

Location J2P-47, designated MW-355 upon commencement of drilling (October 2004), was installed southeast of the J-2 East plume, downgradient of MW-319 on an east-southeast trending forward particle track from MW-319 and upgradient of a perchlorate detection from a residential well. MW-355 was drilled to 335 ft bgs. No perchlorate or explosives were detected in the profile samples. Two well screens were installed at this location. MW-355M1 (–62 to –72 ft msl; 220 to 230 ft bgs) was installed at the model-predicted depth where potential contamination from upgradient location MW-319M2 may occur. MW-355S (65 to 55 ft msl; 93 to 103 ft bgs) was installed at the water table to correspond with the residential perchlorate detection, which was at or near the water table.

## J2P-48 (MW-357)

Location J2P-48, designated MW-357 upon commencement of drilling (October 2004), was installed to determine the downgradient extent of the J-2 East plume. MW-357 was drilled to 332 ft bgs. 3-Nitrotoluene (3-NT) was detected in one profile sample. Perchlorate was not detected in any of the profile samples. Two well screens were installed at this location. MW-357M1 (-107 to -117 ft msl; 275 to 285 ft bgs) was installed to correspond with the elevation of cross-gradient well MW-334M1. MW-357M2 (-17 to -27 ft msl; 184 to 194 ft bgs) was installed to intersect the only explosives detection in the profile samples.

## J2P-50 (MW-358)

Location J2P-50, designated MW-358 upon commencement of drilling (November 2004), was installed to determine the downgradient extent of the J-2 East plume. MW-358 was drilled to 349 ft bgs. VOCs (tetrachloroethene [PCE], chloromethane, chloroform) were detected in the profile samples. Perchlorate and explosives were not detected in any of the profile samples. Two well screens were installed at this location. MW-358M1 (–68 to –78 ft msl; 230 to 240 ft bgs) was installed at the projected depth of particle tracks from MW-319M2 and intersects the deepest PCE detection in the profile samples. MW-358M2 (–16 to –26 ft msl; 178 to 188 ft bgs) was installed to intersect the maximum PCE and chloromethane detections in the profile samples.

#### J2P-49 (MW-362)

Location J2P-49, designated MW-362 upon commencement of drilling (December 2004), was installed to determine the downgradient extent of the J-2 East plume. MW-362 was drilled to 329 ft bgs. VOCs (methyl tert-butyl ether [MTBE], chloroform, dibromochloromethane) were detected in the profile samples. Perchlorate and explosives were not detected in any of the samples. Two well screens were installed at this location. MW-362M1 (–70 to –80 ft msl; 229 to 239 ft bgs) was installed at the projected elevation of forward particle tracks from MW-319M2. MW-362M2 (–11 to –21 ft msl; 170 to 180 ft bgs) was installed at the same elevation as MW-358M2 to the north.

## J2P-52 (MW-365)

Location J2P-52, designated MW-365 upon commencement of drilling (January 2005), was installed downgradient of MW-310 and east of MW-324 to define the downgradient and eastern extent of the J-2 East plume, as well as characterize contamination upgradient of MW-334. MW-365 was drilled to 316 ft bgs. RDX, other explosives, and VOCs were detected in the profile samples. Three well screens were installed at this location. MW-365M1 (-119 to -129 ft msl; 276-286 ft bgs) was installed to intersect the deep explosives detection. MW-365M2 (-49 to -59 ft msl; 206 to 216 ft bgs) was installed at an elevation in-between the two well screens at cross-gradient location MW-324. MW-365S (63 to 53 ft msl; 93 to 103 ft bgs) was installed to intersect the RDX detection near the water table.

## J2P-51 (MW-366)

Location J2P-51, designated MW-366 upon commencement of drilling (January 2005), was installed downgradient of the central portion of the J-2 Range and west of MW-335 to define the western edge of the J-2 East plume. MW-366 was drilled to 311 ft bgs. Perchlorate, RDX and VOCs (chloroform) were detected in the profile samples. Three well screens were installed at this location. MW-366M1 (–62 to –72 ft msl; 215-225 ft bgs) was installed to intersect a deep perchlorate detection separate and below the main plume (as defined by a series of perchlorate detects). MW-366M2 (–22 to –32 ft msl; 175 to 185 ft bgs) was installed to intersect both the middle of the perchlorate contamination and the sole RDX detection. MW-366M3 (8 to –2 ft msl; 145 to 155 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples.

# J2P-54 (MW-367)

Location J2P-54, designated MW-367 upon commencement of drilling (March 2005), was installed downgradient of the J-2 East Range and east of MW-319 to determine the extent of the J-2 East plume. MW-367 was drilled to 325 ft bgs. RDX and VOCs (MTBE, toluene, chloroform) were detected in the profile samples. Perchlorate was not detected in any of the profile samples. Two well screens were installed at this location. MW-367M1 (–51 to –61 ft msl; 215-225 ft bgs) was installed at an elevation where

forward particle tracks from MW-319M2 are projected to occur. A second well, MW-367M2 (-13 to -23 ft msl; 167 to 177 ft bgs) was installed to intersect an RDX detection that was later determined to be non-detect.

# J2P-53 (MW-368)

Location J2P-53, designated MW-368 upon commencement of drilling (April 2005), was installed downgradient of the J-2 Range and south of MW-335 to define the western edge of the J-2 East plume. MW-368 was drilled to 351 ft bgs. Perchlorate, RDX, HMX, and VOCs were detected in the profile samples. Three well screens were installed at this location. MW-368M1 (–66 to –76 ft msl; 237-247 ft bgs) was installed to intersect the second highest perchlorate detection in the profile samples. MW-368M2 (–31 to –41 ft msl; 203 to 213 ft bgs) was installed to intersect the maximum perchlorate and RDX detections in the profile samples. MW-368M3 (8 to –2 ft msl; 145 to 155 ft bgs) was installed at an elevation corresponding to the highest perchlorate detections at crossgradient location MW-366.

# J2P-55 (MW-372)

Location J2P-55, designated MW-372 upon commencement of drilling (May 2005), was installed downgradient of MW-334 to define the downgradient extent of the deep perchlorate detections observed at MW-334M1, and the downgradient extent of the J-2 East plume. MW-372 was drilled to 315 ft bgs. Explosives and VOCs (including benzene, MTBE, toluene, chloroform) were detected in the profile samples. Two well screens were installed at this location. MW-372D (–128 to –138 ft msl; 301-311 ft bgs) was installed approximately 1 ft above bedrock at an elevation determined from forward particle tracks from MW-310M1, MW-324M1 and MW-334M1. MW-372M1 (–101 to -111 ft msl; 273 to 283 ft bgs) was installed at an elevation determined by a forward particle track from MW-324M2.

#### J2E-DP1 (DP-371)

Location J2-DP1, designated DP-371 upon commencement of drilling (May 2005), was installed within the J-2 East plume using a direct push rig between and cross-gradient to

MW-310 and MW-319 as a means of confirming the detections at MW-319. DP-371 was advanced to refusal at 212 ft bgs. Perchlorate and explosives were detected in the profile samples. The drill rods and screen used during the profiling were left in place as microwell DP-371 (–46 to –51 ft msl; 207 to 212 ft bgs).

# J2E-DP2 (DP-377)

Location J2-DP2, designated DP-377 upon commencement of drilling (May 2005), was installed using a direct push rig downgradient of MW-336, south of the J-2 East plume, and a few hundred ft southeast of the J-2 Range, near the eastern boundary of the Massachusetts Military Reservation (MMR), to confirm that contaminants are not migrating beyond the MMR boundary in this area. DP-377 was advanced to refusal at 190 ft bgs. No perchlorate or explosives were detected in the profile samples. The drill rods and screen used during the profiling were left in place as microwell DP-377 (–55 to –60 ft msl; 185 to 190 ft bgs).

#### J2P-56 (MW-381)

Location J2P-56, designated MW-381 upon commencement of drilling (June 2005), was installed downgradient of the J-2 Range on a forward particle track from MW-366 to define the downgradient extent of contamination. The well is located between the main lobes of the J-2 North and J-2 East plumes. MW-381 was drilled to 352 ft bgs. Perchlorate was detected in one profile sample. Two well screens were installed at this location. MW-381M1 (–55 to –65 ft msl; 233-243 ft bgs) was installed at an elevation determined from forward particle tracks of perchlorate and RDX detections in upgradient well MW-366 and to coincide with the MW-322M1 screen to the west. MW-381M2 (–18 to –28 ft msl; 196 to 206 ft bgs) was installed to intersect the perchlorate detection from the profile samples and to coincide with a forward particle track from the maximum perchlorate detection at MW-366.

#### J2P-57 (MW-388)

Location J2P-57, designated MW-388 upon commencement of drilling (July 2005), was installed downgradient of the J-2 Range and between MW-307 and MW-366 to further

characterize the area between the J-2 North and J-2 East plumes. MW-388 was drilled to 294 ft bgs. Perchlorate was detected in the profile samples. Explosives were not detected in any of the profile samples. Three well screens were installed at this location. MW-388M1 (–34 to –44 ft msl; 175-185 ft bgs) was installed to intersect a perchlorate detection in the profile samples and to coincide with a reverse particle track from MW-366M1. MW-388M2 (–4 to –14 ft msl; 145 to 155 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples and to coincide with a reverse particle track from MW-366M2. MW-388M3 (55 to 45 ft msl; 86 to 96 ft bgs) was installed to coincide with a reverse particle track from MW-366M3.

## J2P-60 (MW-393)

Location J2P-60, designated MW-393 upon commencement of drilling (August 2005), was installed on a forward particle track from MW-368 and between MW-351 and MW-354 to characterize the center downgradient of the J-2 East plume. MW-393 was drilled to 325 ft bgs. Perchlorate, RDX, other explosives and VOCs (toluene, MTBE, chloroform) were detected in the profile samples. Three well screens were installed at this location. MW-393D (–157 to –167 ft msl; 314-324 ft bgs) was installed approximately 1 ft above bedrock to intersect a perchlorate detection located just above bedrock. MW-393M1 (–112 to –122 ft msl; 268 to 278 ft bgs) was installed to intersect the maximum perchlorate detection in the profile samples and to center the screen within the general perchlorate contamination in this location. The screen elevation also closely coincides with cross-gradient well screens MW-334M1, MW-351M1 and MW-354M1. MW-393M2 (–62 to –72 ft msl; 218 to 228 ft bgs) to intersect the top of the perchlorate detection and the maximum RDX detection in the profile samples. The screen elevation also coincides with cross-gradient well screen MW-351M2.

#### J2P-58 (MW-399)

Location J2P-58, designated MW-399 upon commencement of drilling (September 2005), was installed based on a forward particle track from MW-351 and a reverse particle track from MW-18 to define the western extent leading edge of the J-2 East plume. MW-399 was drilled to 324 ft bgs. RDX, other explosives and VOCs (MTBE, chloroform) were detected in the profile samples. Perchlorate was not detected in any of

the profile samples. Two well screens were installed at this location. MW-399M1 (–74 to –84 ft msl; 238-248 ft bgs) was installed to intersect the maximum RDX detection in the profile samples. MW-399M2 (40 to 30 ft msl; 125 to 135 ft bgs) was installed to intersect a detection of 4-amino-2,6-DNT.

# J2P-59 (MW-436)

Location J2P-59, designated MW-436 upon commencement of drilling (March 2006), was installed on a forward particle track from MW-393 and upgradient of MW-399 to define the center of leading edge of the J-2 East plume. MW-436 was drilled to 346 ft bgs. VOCs (toluene, chloroform) were detected in the profile samples. Perchlorate and explosives were not detected in any of the profile samples. Two well screens were installed at this location. MW-436M1 (–119 to –129 ft msl; 296-306 ft bgs) was installed based on a forward particle track to intersect the projected main zone of contamination detected upgradient at MW-393M1. MW-436M2 (–59 to –69 ft msl; 236 to 246 ft bgs) was installed based on a forward particle track where the shallowest upgradient contamination is projected to occur in the future.

						L		] [V]	IW-289					
Proje	ect Name	: J-2	RANGE						Location: Chadwick Road	, J2 Range				
North	ning: M	1: 46	318406.02	., M2: 4	618405.9	7, 5	S: 4618	3405	.92 Easting: M1: 373894.67,	M2: 373894.6	7, S: 37	3894	.67	
Drilli	ng Contra	actor:	D. L. Mal	ner Co.		Ele	evation f	t (MSI	_): M1: 169.00, M2: 169.00,	S: 169.00 @	Top PV0	)		
Drilli	ng Equip	ment:	Dual Air F	Rotary #	87-1	We	ell Depth	nft (B0	GS): M1: 317.60, M2: 172.34	l, S: 115.14				
Drilli	ng Metho	d: A	ir-Rotary			BH	BH Depth/Diam: 346.00 ft (BGS), 8.00 in. First Water ft (BC					GS): 103.05		
Sam	pling Met	thod:	Stainless	Steel Ba	ailer	Sta	art/End [	Date:	08/12/03 - 08/27/03	Well Diameter	(in.): 2.5	0		
Cons	st. Materi	als	SCH 80 P	VC		Pro	oject Nu	mber:	35AY5301	Static Water ft (	BTOC): 9	8.42		
Logg	jed by: D	lcher R	teviewed b	y: Larry F	an	nell, P	G	Completion: Flushmount	Date Measured	: 02/03/0	6			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval	Sample ID	PID/FID	Gamma CPS 20 45 Conductive 2 6	70	USCS Class		Lithologic Description and Associated Lithographic		Well Construc Diagra		Elevation (ft msl)	
- - -0											M1 M2	! S	170 -	
- - -							SPSM		SAND: 2.5Y 4/4 olive brown, fine gramedium, trace coarse, little fine subrogravel, trace coarse rounded gravel, trace organics, loose, dry	unded to rounded			165 -	
-5 - - - -				0			SP		SAND: 2.5Y 5/4 light olive brown, so coarse, little fine, little fine subangular gravel, trace coarse subrounded grav dry	to well rounded			160 -	
- - - - - 15				0					SAND: 2.5Y 5/4 light olive brown, so medium, little fine, little fine subangula gravel, tracecoarse subangular to rou silt, loose, dry	ar to rounded	-		155 -	
- - - - 20				0					SAND: 2.5Y 6/4 light yellowish brown some fine, trace coarse, trace fine rot silt, loose, dry		#1 WG	200000000000000000000000000000000000000	150 -	
- - - 25 -											200000000000000000000000000000000000000	200000000000000000000000000000000000000	- 145 - -	
- - - 30 -									SAND: 2.5Y 6/4 light yellowish brown				140 -	
- - 35				0					little coarse, little fine, little fine round coarse rounded gravel, trace silt, loos SAND: 2.5Y 5/4 light olive brown, fin	e grained, some	H		135 -	
- - - 40				0					medium, trace coarse, trace fine roun silt, loose, dry	ded gravel, trace			130 -	
-									SAND: 2.5Y 6/6 olive yellow, mediun fine, trace to little coarse, little fine rou coarse rounded gravel, trace silt, loos	inded gravel, trace			-	

Proje	ect Name	e: J-2	2 RANGE				Location: Chadwick Road, J2 Range	
-				M2: 46	318405.97, S	: 4618	405.92 Easting: M1: 373894.67, M2: 373894.67, S: 37389	94.67
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery		J/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class	Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	n (ft msl)
- - 45 -								125 -
- - 50 -								120 -
- 55 - - -				0			SAND: 2.5Y 6/6 olive yellow, medium grained, some fine, trace coarse, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry	115 -
- 60 - - - - 65				0			SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse, trace to little fine subrounded to rounded gravel, trace coarse subrounded gravel, trace silt, loose, dry	105 -
- 70							SAND: 2.5Y 6/6 olive yellow, medium grained, little	100 -
- - - 75				0			coarse, little fine, trace fine rounded gravel, trace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, medium grained, some	95 - -
- - - 80							fine, little coarse, trace fine rounded gravel, trace silt, loose, dry	90 -
- - - 85							SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse, trace fine rounded gravel, trace silt, loose, dry	85 –
- - - 90				0			SAND: 2.5Y 6/6 olive yellow, medium grained, some coarse, little fine, little fine rounded gravel, trace coarse rounded gravel, trace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, fine and medium grained,	80 -
- - - 95							trace coarse, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, medium grained, some	75 -

Proje	ect Name	e: J-2	2 RANGE			1D.		Location: Chadwick Road, J2 Range	
				M2: 46	518405.97, S	: 4618	3405.92	Easting: M1: 373894.67, M2: 373894.67, S: 373894.	.67
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	á	Well Lithologic Description Construction and Associated Lithographic Symbol Diagram	Elevation (ft msl)
- - - - - - - - - - - - - -				0				SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse, little fine, trace to little fine subrounded to ounded gravel, trace coarse subrounded gravel, trace silt, loose, moist	- - - - - - - - - - - - - - - - - - -
- 110 - 110 115 				0			r r	SAND: 2.5Y 5/6 light olive brown, fine grained, some nedium, trace coarse, trace coarse subrounded to ounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet	- 60 - - - - - 55 - -
- - 120 - - - - - - 125				0			(1000000 II	SAND: 2.5Y 6/4 light yellowish brown, medium grained, ttle coarse, little fine, trace coarse rounded gravel, race fine rounded gravel, trace silt, loose, wet	-50 - - - - - - 45 -
- - - 130 - -			-	0			f f	SAND: 2.5Y 6/6 olive yellow, medium grained, some ine, little coarse, trace coarse subrounded gravel, trace ine subrounded to rounded gravel, trace silt, loose, wet	40 - - - - - 35 -
- 135 - - - - 140 -				0			:::::::::: g	SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse, trace fine subrounded to rounded gravel, trace silt, loose, wet	30 -
- - 145 - - -							5		25 - - - - - - -



					LUC		181 88		_
Proje	ect Name	e: J-2	RANGE					Location: Chadwick Road, J2 Range	_
Nort	hing: M			M2: 46	318405.97, S	3: 4618	3405.9		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol  Well  Construction Diagram	Elevation (ft msl)
- 150 - - - - - 155				0				SAND: 2.5Y 5/4 light olive brown, fine grained, little medium, trace coarse, trace fine rounded gravel, trace silt, loose, wet	15 -
- - - 160 -				0				SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium, trace coarse, trace fine rounded gravel, trace silt, loose, wet	10 -
- 165 - - - - 170 -				0				SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium, trace coarse, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet	0-
- 175 - - - - - - 180				0				SAND: 2.5Y 6/6 olive yellow, medium grained, little	-5 - - - -10 -
- - - 185 - -								fine, trace to little coarse, trace coarse subrounded gravel, trace fine subrounded to tounded gravel, trace silt, loose, wet	-15 <del>-</del> -15 -
- - 190 - -				0		SPSM		SAND: 2.5Y 5/4 light olive brown, fine grained, little medium, tracecoarse, trace fine rounded gravel, trace to little silt, loose, wet	-20 - - - -
- 195 -								little medium, trace coarse, trace to little silt, loose, wet	-25 -
- 200 -				0				SAND: 5Y 5/4 olive, some fine, little coarse, little fine, little fine subrounded to rounded gravel, trace coarse subrounded to rounded gravel, trace to little silt, loose, wet	-30 <del>-</del> -

						וט:	, 20)			
Proje	ect Name	e: J-2	RANGE				Location: Chac	dwick Road, J2 Range		
Nort	hing: M		8406.02,	M2: 46	318405.97, S	: 4618	.92 Easting: M1:	373894.67, M2: 373894.	67, S: 37389	4.67
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		c Description Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 -										-35 - - -
- 210 - 215				0		SP	little coarse, trace to	olive, some medium, some fine, little fine subrounded to rounded subrounded to rounded gravel,		-40 - - - - -45 -
- 220 -				0		SPSM	medium, trace to little	t olive brown, fine grained, some e coarse, trace to little silt, trace gravel, trace fine subrounded to		-50 —
- 225 - - - - 230							Tourided graver, roose	e, wei		-55 - - - -60 -
- 235 -				0			medium, little coarse	t olive brown, fine grained, some , trace to little fine subrounded to trace coarse subrounded gravel, e, wet	Institution	-65 <del>-</del>
- - 240 - -				0		SP	fine, little coarse, little	t olive brown, some medium, some e fine subrounded to well rounded subrounded to rounded gravel,		-70 - - - -
- 245 - - - -										-75 - - - - -80 -
- 250 - - -				0			medium, trace coarse	t olive brown, fine grained, little e, trace coarse rounded gravel, avel, trace silt, loose, wet		-80 - - - -85 -
- 255 -										-

					LOO	1D.	MW-289	
Proje	ect Name	e: J-2	RANGE				Location: Chadwick Road, J2 Range	
Nort	thing: M		3406.02,	M2: 46	318405.97, S	: 4618	3405.92 Easting: M1: 373894.67, M2: 373894.67, S: 373894	4.67
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - 260 - - - - - 265				0		SM	SAND: 2.5Y 5/6 light olive brown, fine grained, little medium, trace coarse, little silt, loose, wet	-90 - 
- 270 - - - - 275				0			SAND: 2.5Y 6/6 olive yellow, fine grained, little medium, little silt, loose, wet	100 - - - - 105 -
- - - 280				0			SAND: 2.5Y 6/6 olive yellow, fine grained, trace medium, little silt, loose, wet	- - 110 - - -
- 285 								115 - - - - - 120 -
- 290 - - - - - 295				0			SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium, some silt, loose, wet	- - 125 –
- 300				0		ML	SILT: 5Y 4/4 olive, trace fine sand, medium dense, dry  SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium, some silt, loose, wet	130 – -
- - - 305 -								- 135 – - -
-								140 -

Proje	ect Name	e: J-:	2 RANGE				Location: Chadwick Road, J2 Range	
Nort	hing: M	1: 46	18406.02,	M2: 46	318405.97, S	: 4618	3405.92 Easting: M1: 373894.67, M2: 373894.67, S: 373894	4.67
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 310 -				0			SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium, some silt, loose, wet	-
- 315 -						CL	CLAY: 5Y 5/6 olive, trace fine sand, trace silt, dense, dry	- 145 - - -
- 320				0		SCCL	SAND AND CLAY: 5Y 5/6 olive, fine grained sand, trace silt, medium dense, wet  SAND AND CLAY: 5Y 5/6 olive, fine grained sand, trace silt, medium dense, wet	- - 150 - - -
- - 325								- 155 – - -
- - 330 -			-	0			SAND AND CLAY: 5Y 5/6 olive, fine grained sand, trace silt, medium dense, wet	- 160 - - -
- - - 335 -							SAND: 2.5Y 5/6 light olive brown, some coarse, some	- 165 – -
- - 340 -				0		SP SM	medium, little fine, little fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/6 light olive brown, some coarse, some medium, little fine, little fine angular to rounded gravel,	170 – - - -
- - - 345 -			_			GM	GRANITE GRAVEL PROBABLE WEATHERED BEDROCK: 2.5Y 6/4 light yellowish brown, fine angular to subangular gravel, trace coarse angular to subangular gravel, little coarse sand, little medium sand, little fine sand, little silt, loose, wet	- 175 - - -
- - 350 -							Notes: 1. Well Depths MW-289M1: 317.60 ft (BGS) MW-289M2: 172.34 ft (BGS)	- 180 – - -
- - 355 -							MW-289S: 115.14 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-289M1: 10.00 ft MW-289M2: 10.00 ft MW-289S: 10.05 ft	- 185 – - -
- - 360							4. Screen Intervals MW-289M1: 304.62 - 314.62 ft (BGS) MW-289M2: 162.02 - 172.02 ft (BGS) MW-289S: 104.64 - 114.69 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 169.18 ft (MSL)	- 190 – -

								-						
			RANGE						Location: Off Chadwick Ro					
			18353.52,		618353.5	_			Easting: M1: 373974.41,		1			
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation	t (MSL	): M1: 163.08, M2: 163.08 (	@ Top PVC				
Drillir	ng Equip	ment: [	Dual Air R	otary #	87-1	We	Well Depth ft (BGS): M1: 292.59, M2: 165.65							
Drillir	ng Metho	d: Aiı	r-Rotary			ВН	BH Depth/Diam: 330.00 ft (BGS), 8.00 in. First Water ft (BG					: 98.	7	
Sam	pling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End I	Date: (	09/03/03 - 09/17/03	Well Diameter (	(in.):	2.5	0	
Cons	st. Materi	als S	SCH 80 P\	/C		Pro	oject Nu	mber:	35AY5301	Static Water ft (	ВТС	)C): 9	2.22	2
Logg	ed by: D	. Mel	cher Re	eviewed b	y: Larry I	⊃anı	nell, P	G	Completion: Flushmount	Date Measured	: 02	2/01/0	)6	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conductiv	70	USCS Class		Lithologic Description and Associated Lithographic	Symbol	Well Construction Diagram			Elevation (ft msl)
-												M1 M	2	165 -
-0 - -				0			SM SP		SAND: 2.5Y 4/4 olive brown, fine grain sand, little medium sand, little silt, track gravel, trace organics, loose, dry		situs			160 -
- -5 -									SAND: 2.5T 5/4 light olive brown, sor coarse sand, little medium sand, little rounded gravel, trace coarse subroun silt, loose, dry	fine subangular to				100 -
- - - 10				0					SAND: 2.5Y 5/5 light olive brown, sor some fine sand, little coarse sand, trac subrounded to rounded gravel, trace subrounded gravel, strace silt, loose, or subrounded gravel, strace silt, strace si	ce to little coarse coarse				155 -
-				0					SAND: 2.5Y 5/3 light olive brown, fine medium sand, some fine sand, little co fine subangular to rounded gravel, tra	parse sand, little				150 –
- 15 - -				0					SAND: 2.5Y 5/4 light olive brown, me some fine sand, little coarse sand, trac gravel, trace silt, loose, dry					145 -
- - 20 -											#2 WG			-
- - - 25				0										140 -
- - - 30									SAND: 2.5Y 6/6 olive yellow, some m some fine sand, little coarse sand, littl to rounded gravel, trace coarse subro trace silt, loose, dry	e fine subrounded				135 -
- - - 35				0					SAND: 2.5Y 6/4 light yellowish brown grained, trace coarse sand, trace fine trace silt, loose, dry					130 -
- - - 40														125 -
-									SAND: 2.5Y 6/4 light yellowish brown sand, little coarse sand, little fine sand subangular to rounded gravel, trace si	I, little fine				]



Proj	ect Name	: J-2 RANGE					Location: Off Chadwick Road, J2 Range	<del>)</del>	
Nort	thing: M	1: 4618353.52,	M2: 46	318353.57			Easting: M1: 373974.41, M2: 373974.	41	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 45									120 -
- - - - 50									115 -
- - - 55			0			::::::: t	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, race coarse sand, trace fine rounded gravel, trace silt, oose, dry	1	110 -
- - - 60						t	SAND: 2.5Y 6/6 olive yellow, some medium sand, little coarse sand, little fine sand, little fine rounded gravel, race coarse subrounded to rounded gravel, trace silt, oose, dry		105 -
- - - 65			0			[:::::::::::::::::::::::::::::::::::::	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, race coarse sand, trace fine rounded gravel, trace silt, oose, dry		100 -
- - - 70									95 -
- - - 75			0			r	SAND: 2.5Y 6/6 olive yellow, fine grained, some medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, dry		90 -
- - - 80									85 – -
- - - 85			0			t t	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, race to little coarse sand, trace coarse subrounded to ounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, dry		80 -
- - - 90									75 -
- - - 95			0			::::::::::::::::::::::::::::::::::::::	SAND: 2.5Y 6/6 olive yellow, some medium sand, some coarse sand, little fine sand, little fine subrounded o rounded gravel, trace coarse subrounded gravel, race silt, loose, damp	in-stiu Soil	70 -

Proj	ect Name	e: J-2 RANGE				Location: Off Chadwick Road, J2 Range	<del>)</del>	
Nor	thing: M	1: 4618353.52,	M2: 46	318353.57		Easting: M1: 373974.41, M2: 373974.	41	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 100 - - - - 105 -			0			SAND: 2.5Y 6/6 olive yellow, fine grained, some medium sand, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, loose, wet	<b>□</b>	65 - 60 - 55 -
- 110 - - - - - 115 - -			0		SPSM	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, trace to little silt, trace fine subrounded to rounded gravel, loose, wet		50 -
- 120 - - - - - 125 -			0		SP	SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, wet		40 -
- - 130 - - - - - 135			0			SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet		30 -
- - - 140 - - - -			0			SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet		25 - - - - - - 20 -
-							3	15 -



Proje	ect Name	: J-2 RANGE				Location: Off Chadwick Road, J2 Range			
Nort	hing: M′	1: 4618353.52,	M2: 46	318353.57		Easting: M1: 373974.41, M2: 373974.41			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 -			0				SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, loose, wet	Bentonite	10 -
- 155 - - - - - 160			0			_	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, trace fine subrounded	MON WG	5-
- - 165 -							to rounded gravel, trace silt, loose, wet		- 0- - - -5-
- 170 - - - - 175			0				SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, loose, wet		-10 <del>-</del>
- - 180 -			0				SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, trace silt, loose, wet	-	-15 - - - -20 -
- 185 - - - - - - 190									-25 -
- 190 - - - 195 -			0		SM	: : :	SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, little silt, trace fine subangular to rounded gravel, loose, wet		-30 -
- - 200 -			0		SP		GRAVELLY SAND: 5Y 6/4 pale olive, some coarse sand, some medium sand, little fine sand, some fine subangular to rounded gravel, little coarse subrounded to rounded gravel, trace silt, loose, wet		-35 <del>-</del>



Proje	ect Name	∷ J-2 F	RANGE					Location: Off Chadwick Road, J2 Range	e		
Nort	hing: M		353.52,	M2: 46	18353.57			Easting: M1: 373974.41, M2: 373974.	41		_
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery			USCS Class		Lithologic Description and Associated Lithographic Symbol		Well Construction Diagram		
- - 205 -											-40 - - - -
- 210				0			1	SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, loose, wet			-45   -50
- 215 - - - - 220								SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, little coarse sand, little fine subangular to rounded gravel, trace coarse subrounded gravel, trac silt, loose, wet			- - -55 -
- - - - 225				0			1	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, loose, wet	In-situ Soil		-60 -
- - - 230				0		SM	1	SAND: 2.5Y 6/6 olive yellow, fine grained, little coarse sand, little medium sand, trace fine subrounded to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/6 olive yellow, fine grained, little medium			-65 - -
- - - 235						GW		sand, trace coarse sand, little silt, trace fine subangular to rounded gravel, loose, wet			-70 - -70 - -
- - - 240				0				SAND: 2.5Y 6/6 olive yellow, fine grained, some			-75 - - - -
- - - 245 -								medium sand, trace coarse sand, little, silt, trace fine subrounded to rounded gravel, loose, wet			-80 - - - - -
- - - 250				0		SPSM		SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace to little silt, trace			-85 - - - - -
- - - 255								fine subrounde to rounded gravel, loose, wet			-90 - -90 - -



Proj	ect Name	e: J-2 RANGE			ID.	Location: Off Chadwick Road, J2 Range	
Nort	thing: M	1: 4618353.52,	M2: 46	318353.57		Easting: M1: 373974.41, M2: 373974.41	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 260 265 265			0		SM	SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, trace coarse sand, little silt, trace fine subangular to rounded gravel, loose, wet	-95 - - - - - - - - - - - - - - - - - - -
- 270 - 270 275 275			0			le Ball	110 -
- 280 - - - - 285 - -			0			MMO	120 -
- 290 - - - - - - 295			0		SC	CLAYEY SAND: 2.5Y 4/4 olive brown, fine grained sand, trace coarse sand, trace medium sand, trace silt, loose, wet	130 -
- - - 300 - - - - 305 -			0		CL	CLAY: 5Y 5/6 olive, little fine sand, trace coarse sand, trace medium sand, trace silt, dense, moist	135 - - - - - 140 - - - - - - -

Proje	ect Name	e: J-2	RANGE					Location: Off Chadwick Road, J2 Range	<b>!</b>	
Nort	hing: M	1: 461	8353.52,	M2: 46	318353.57			Easting: M1: 373974.41, M2: 373974.4	41	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 31U - -						SCCL		CLAY AND SAND: 5Y 5/6 olive, some coarse sand, ttle medium sand, little fine sand, trace to little fine ubangular to rounded gravel, trace silt, loose, wet		- - -150 –
- 315 - - - - - 320				0		SPGP	O G	SAND AND GRAVEL: 2.5Y 5/6 light olive brown, some oarse sand, some medium sand, little fine sand, some ne subangular to rounded gravel, trace coarse ubrounded to rounded gravel, trace silt, loose, wet	In-situ Soli	-155 —
- - - 325 -						BR	( ) ( ) p	BEDROCK: light gray GRANITE BEDROCK redominantly in the form of angular to subangular fine		-160 - - -160 - - -
- - - 330 -							\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ravel and coarse sand; trace 2.5Y light yellowish rown fine to medium grained sand present, indicating robable sand lenses		-165 – - - -
- - - 335							1 N	Notes: 1. Well Depths WW-292M1: 292.59 ft (BGS) WW-292M2: 165.65 ft (BGS)	-	-170 - -170 -
- - - 340 -							2 S S S S N N N N N N N N N S S S S S S	2. SCH 80 PVC Screens 3. Screen lengths WW-292M1: 10.01 ft WW-292M2: 10.00 ft 4. Screen Intervals WW-292M1: 282.08 - 292.09 ft (BGS) WW-292M2: 155.15 - 165.15 ft (BGS) 5. Slot Size 0.010 in. 5. Surface Elevation: 163.11 ft (MSL)		-175 - -175 - - - -180 -
- - 345								Printed on 11/01/06		- 100 -

Project Name: J-2 RANGE		Location: Wood Road Lo	cation 1		
Northing: M1: 4618986.45, M2: 4618986.5	0, S: 4618	986.55 Easting: M1: 373993.97,	M2: 373993.9	7, S: 37399	3.97
Drilling Contractor: D. L. Maher Co.	Elevation ft	(MSL): M1: 174.02, M2: 174.02	, S: 174.02 @	Top PVC	
Drilling Equipment: Dual Air Rotary #87-1	Well Depth	ft (BGS): M1: 306.94, M2: 206.9	2, S: 120.45		
Drilling Method: Air-Rotary	BH Depth/D	Diam: 343.46 ft (BGS), 8.00 in.	First Water ft (E	BGS): 107	
Sampling Method: Stainless Steel Bailer	Start/End Da	ate: 10/20/03 - 10/23/04	Well Diameter	(in.): 2.50	
Const. Materials SCH 80 PVC	Project Num	nber: 35AY5301	Static Water ft (	BTOC): 104.2	21
Logged by: D. Melcher Reviewed by: Larry	Pannell, PG	Completion: Flushmount	Date Measured	: 01/18/06	
Blow Counts Per 6 Inches Sample Interval //Recovery Sample ID Sample ID //Recovery //Recovery 2 County 6 Gamma 6 Gamma 7 Fer 6 Inches 6 Gamma 7 Fer 6 Inches 6 Gamma 7 Fer 6 Inches 8 Gamma 8 Gamma 8 Gamma 9 Fer 6 Inches 9 Fer 6 Inch	70 Ss O	Lithologic Descriptic and Associated Lithographi		Well Construction Diagram	Elevation (ft msl)
				M1 M2 S	- 175 -
0	ML SP	SANDY SILT: 2.5Y 4/4 olive brown little medium sand, trace coarse sar subrounded to rounded gravel, trace rounded gravel, trace organics, loos	d, trace coarse e fine subrounded to e, dry		- - - 170 –
-5		GRAVELLY SAND: 2.5Y 6/8 olive y medium sand, little coarse sand, little coarse sand, little coarse subangular to subrounded g subangular to rounded gravel, trace  SAND: 2.5Y 6/6 olive yellow, some coarse sand, little fine sand, little co	e fine sand, little ravel, little fine silt, loose, dry medium sand, little		- - - 165 –
0		subrounded gravel, trace fine subar gravel, trace silt, loose, dry  SAND: 2.5Y 6/4 light yellowish brow some medium sand, trace coarse so subangular to subrounded gravel, tr	vn, fine grained, and, little coarse		160 -
-15		SAND: 2.5Y 6/4 light yellowish brows and, some medium sand, little fine angular to rounded gravel, trace coasubrounded gravel, trace silt, loose,	lry /n, some coarse sand, little fine irse subangular to		- - - - 155 –
-20 0		GRAVELLY SAND: 2.5Y 6/4 light y some medium sand, little coarse sa			- - -
- 25		little coarse subangular to rounded g subangular to rounded gravel, trace	gravel, little fine		150 -
-30		SAND: 2.5Y 6/6 olive yellow, some some fine sand, little coarse sand, lit to well rounded gravel, trace coarse trace silt, loose, dry	ttle fine subrounded		- 145 - -
- 35		SAND: 2.5Y 6/6 olive yellow, some some fine sand, little coarse sand, lit to well rounded gravel, trace coarse rounded gravel, trace silt, loose, dry	ttle fine subrounded subrounded to	#2 WG	- 140 - -
-40					- 135 <del>-</del> -

Proje	ect Name	e: J-2 RANGE					Location: Wood Road Location 1	$\neg$
Nort	thing: M	1: 4618986.45,	M2: 46	318986.50, S	: 4618	986.55	Easting: M1: 373993.97, M2: 373993.97, S: 373993.	97
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	J/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class			Elevation (It msi)
- - - 45 -			0			tr	AND: 2.5Y 6/6 olive yellow, fine and medium grained, ace coarse sand, trace coarse subrounded to rounded ravel, trace fine subrounded to rounded gravel, trace	0 -
- - 50 -							ilit, loose, dry	
- 55 - - - - - 60							11	
- - - - 65			0			s s	AND: 2.5Y 6/6 olive yellow, some medium sand, ome fine sand, trace coarse sand, little fine ubrounded to well rounded gravel, trace coarse ubrounded to rounded gravel, trace silt, loose, dry	0 -
- - 70			0				AND: 2.5Y 6/6 olive yellow, some medium sand, little	- - - - - - -
- - 75 -						············ w	oarse sand, little fine sand, little fine subrounded to rell rounded gravel, trace coarse subrounded to bounded gravel, trace silt, loose, dry	0 -
- - - 80						n 💮	AND: 2.5Y 6/6 olive yellow, fine grained, some nedium sand, trace coarse sand, trace coarse	95 -
- - - 85 -			0			S tr	ubrounded gravel, trace fine rounded gravel, trace silt, loose, dry  AND: 2.5Y 6/6 olive yellow, fine and medium grained, lace coarse sand, trace coarse rounded gravel, trace ne rounded gravel, trace silt, loose, dry	90 -
- - - 90						s ro	AND: 2.5Y 6/6 olive yellow, some medium sand, ome fine sand, little coarse sand, trace to little fine bunded to well rounded gravel, trace rounded gravel,	35 -
- - - 95			0			_	eace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, some medium sand,	30 -



Proje	ect Name	e: J-2 I	RANGE					Location: Wood Road Location 1	
Nort	hing: M		986.45,	M2: 46	318986.50, S	: 4618	3986.55	Easting: M1: 373993.97, M2: 373993.97, S: 373993.	97
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description  Construction and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 100 105				0				SAND: 2.5Y 6/6 olive yellow, some medium sand, little coarse sand, little fine sand, little coarse subrounded to well rounded gravel, little fine subrounded to rounded gravel, trace silt, loose, dry	75 -
- - - 110				0				SAND: 2.5Y 6/6 olive yellow, fine and medium grained,	65 —
- - 115 - -								DM 1900s	50 - - - - - -
- 120 - - - - - 125								SAND: 2.5Y 5/4 light olive brown, some meidum sand, some fine sand, little coarse sand, little fine subrounded to well rounded gravel, trace coarse rounded to well rounded gravel, trace silt, loose, wet	50 -
- 125				0		SPSM		SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace to little silt, trace fine rounded gravel, loose, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, little	- - 15 –
- 130 -				0		SP		medium sand, trace coarse sand, little silt, trace fine rounded gravel, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace fine rounded to well	.~ ] - - -
- - - 135 -								rounded gravel trace silt loose wet	40 - -
- - 140 -				0				SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt,	35 -
- - 145							-	loose, wet	30 - - -
-								SAND: 2.5Y 6/4 light yellowish brown, some medium sand, some fine sand, little coarse sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, loose, wet	- 25 –



Proje	ect Name	e: J-2 RANGE		LOC		1/1 //	Location: Wood Road Location 1	$\neg$
Nort	hing: <b>M</b> ′	1: 4618986.45,	M2: 46	S18986.50, S	: 4618	3986.5	Easting: M1: 373993.97, M2: 373993.97, S: 373993.	97
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (π msi)
- 150 155 160 165 170 175 175			0				SAND: 2.5Y 6/3 light yellowish brown, medium grained, some coarse sand, little fine sand, trace coarse rounded gravel, trace fine rounded to well rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet	20 -
- 180 - 180 185			0		SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, little silt, trace coarse rounded gravel, trace fine rounded gravel, loose, wet	-5 - - - - 0 -
- - - 190 -							-1 less all uniture and a second a second and a second an	- - - -
- 195 - - - - 200 -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, little silt, trace coarse subrounded gravel, trace fine subrounded gravel, loose, wet	25 -



Proje	ect Name	e: J-2	RANGE				Location: Wood Road Location 1		
Nortl	hing: M	1: 4618	3986.45,	M2: 46	518986.50, S	: 4618	086.55 Easting: M1: 373993.97, M2: 373993.9	7, S: 37399	3.97
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 205 - - - - - 210				0		SPSM	GRAVELLY SAND: 2.5Y 6/3 light yellowish brown, some fine sand, little coarse sand, little medium sand, some fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace to little silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, some meidum sand, some fine sand, trace coarse sand, little fine subrounded to rounded gravel, trace coarse subrounded to rounded gravel, trace to little silt, loose, wet		-30 - - - -35 -
- - 215 - -				0		SP	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, trace to little silt, trace fine rounded gravel, loose, wet  SAND: 2.5Y 5/4 light olive brown, some medium sand, some fine sand, little coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet		-40 - - - - -45 -
- 220 - - - - - - 225				0			SAND: 2.5Y 6/3 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/3 light yellowish brown, some fine sand, little coarse sand, little medium sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, loose,		-50 —
- - - 230 -						SPSM	SAND: 2.5Y 6/3 light yellowish brown, little coarse sand, little medium sand, little fine sand, little fine rounded gravel, trace coarse rounded gravel, trace to little silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,		-55 - -
- 235 -				0			some medium sand, trace coarse sand, trace coarse rounded gravel, grace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, little coarse sand, little medium sand, little fine sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, loose, wet		-60 - - - - -65 -
- 240 - - - - - 245				0		SPSM	SAND: 2.5Y 6/5 light yellowish brown/light olive brown, fine grained, some medium sand, trace coarse sand, trace to little silt, trace coarse rounded gravel, trace fine rounded gravel, loose, wet		-70 -
- - - 250				0		SM	SAND: 10YR 5/5 yellowish brown, fine grained, trace coarse sand, trace medium sand, little silt, trace fine rounded gravel, loose, wet	Institu Seil	- -75 - - - -
- - - 255 -									-80 <del>-</del>



Proje	ect Name	e: J-2 RANGE		LOC		Location: Wood Road Location 1	
Nort	hing: M	1: 4618986.45,	M2: 46		: 4618	3986.55 Easting: M1: 373993.97, M2: 373993.97, S: 37399	3.97
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 260 265 265			0			SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, little silt, trace to little coarse rounded to well rounded gravel, trace fine rounded to well rounded gravel, loose, wet	-85 - -85 - - -90 - - -95 -
- 270 - - - - - 275 -			0		SP	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet	-100 <del>-</del>
- 280 285 			0		SM	SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, little silt, trace fine rounded gravel, trace clay, loose, wet	-105 - - - - -110 -
- - - 290 - - - - -			0			SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, some silt, trace clay, loose, wet	-115 - -15 - - - -120 -
- 300 305			0			SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, trace medium sand, trace clay, loose, wet	-125 - -125 - - -130 -
-					CL	CLAY: 2.5Y 6/4 light yellowish brown, some fine sand, trace medium sand, little silt, medium stiff, moist	-135 -

Proje	ect Name	: J-2 RANGE				Location: Wood Road Location 1		
Nort	hing: M	1: 4618986.45,	M2: 46	18986.50, S	: 4618	986.55 Easting: M1: 373993.97, M2: 37399	3.97, S: 37399	3.97
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - 315 - 320			0		SC	GRAVELLY SAND: 5Y 4/4 olive, some fine sand, little coarse sand, little medium sand, little coarse subangular to well rounded gravel, little fine subangula to well rounded gravel, little clay, trace silt, lose, wet  GRAVELLY SAND: 5Y 5/4 olive, some fine sand, little coarse sand, little medium sand, little coarse	DM ZZ	-140 - - - - -145 - - -
- 325 - 325 						subangular to well rounded gravel, little fine subangula to well rounded gravel, little clay, trace silt, loose, moist		-150 - - - - - -155 -
- 335 335			0		SPSM	GRAVELLY SAND: 5Y 5/4 olive, some medium sand, some fine sand, trace coarse sand, little coarse angula to well rounded gravel, little fine angular to well rounde gravel, trace to little silt, trace clay, loose, wet		-160 - - -160 - -
- 340 - 345								-165 - - - - -170 -
- 350						Notes: 1. Well Depths MW-293M1: 306.94 ft (BGS) MW-293M2: 206.92 ft (BGS) MW-293S: 120.45 ft (BGS) 2. SCH 80 PVC Screens	_	- - -175 - -
- - - 355 - -						3. Screen lengths MW-293M1: 10.01 ft MW-293M2: 10.00 ft MW-293S: 10.02 ft 4. Screen Intervals MW-293M1: 296.26 - 306.27 ft (BGS) MW-293M2: 196.42 - 206.42 ft (BGS) MW-293S: 110.10 - 120.12 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 173.80 ft (MSL)	-	-180 - -180 - - - - - -

	LOC ID. IVIV				
Project Name: J-2 RANGE		Location: Jefferson Road,			
Northing: M1: 4619754.17, M2: 4619754.22		Easting: M1: 374180.56, I		6	
Drilling Contractor: D. L. Maher Co.	Elevation ft (MSL):	M1: 186.13, M2: 186.13 (	@ Top PVC		
Drilling Equipment: Dual Air Rotary #87-1	Well Depth ft (BGS	i): M1: 265.39, M2: 225.29			
Drilling Method: Air-Rotary	BH Depth/Diam: 34	46.20 ft (BGS), 8.00 in.	First Water ft (B	GS): 120	
Sampling Method: Stainless Steel Bailer	Start/End Date: 11	1/07/03 - 06/08/04	Well Diameter (	(in.): 2.50	
Const. Materials SCH 80 PVC	Project Number: 3	5AY5301	Static Water ft (	BTOC): 118	.51
Logged by: D. Melcher Reviewed by: Larry F	Pannell, PG	Completion: Flushmount	Date Measured	: 03/08/06	
Blow Counts Blow Counts Sample Interval Recovery Sample ID Sample ID Sample ID Sample ID Sample ID Sample ID 6 45 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	O C S S C O O O O O O O O O O O O O O O	Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
				M1 M2	-
	SP SP	GRAVELLY SAND: 2.5Y 3/3 dark oliv fine grained sand, little coarse sand, lit little coarse subrounded to rounded gr subrounded to rounded gravel, little sil loose, dry	ttle medium sand, avel, little fine		- 185 – - - -
-5 - - - -		SAND: 2.5Y light yellowish brown, me some fine sand, little coarse sand, little to rounded gravel, trace coarse rounde silt, loose, dry	e fine subrounded ed gravel, trace	200000000000000000000000000000000000000	- 180 – - -
- 10		GRAVELLY SAND: 2.5Y 6/6 olive yel medium grained sand, little coarse sar little coarse subrounded to rounded gr subrounded to rounded gravel, trace s	nd, little fine sand, avel, little fine ilt, loose, dry	)	175 –
- 15 - 15		GRAVELLY SAND: 2.5Y 6/6 olive yel medium grained sand, some fine sand sand, little coarse subangular to well r little fine subangular to well rounded g loose, dry	l, little coarse ounded gravel,	200000000000000000000000000000000000000	- - 170 –
-20				30000000000000000000000000000000000000	165 –
- 25 - 25		GRANITE BOULDERS: changes in rig suggest possibly four boulders at appr 24-27', 27-29', 29-31' and 31-35' bgs; drill bit in silt and gravel sized particles highly angular with "clean" surfaces	oximate depths of browken down by	.   00000000000000000000000000000000000	- 160 – -
- 30					- 155 - - -
- 35 - - - -		GRAVELLY SAND: 2.5Y 6/6 olive yel medium grained sand, little coarse sar little coarse subangular to rounded grasubangular to well rounded gravel, training the subangular to well rounded gravel, training training training subangular to well rounded gravel.	nd, little fine sand, avel, little fine		- 150 - - -
-40				91	- 145 - -



Proje	ect Name	e: J-2 RANGE				Location: Jefferson Road, N. of Barlow	
		1: 4619754.17,	M2: 46	519754.22		Easting: M1: 374180.56, M2: 374180.56	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	O/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Well  Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - 45 -						A M	140 -
- 50 -						SAND: 2.5Y 6/6 olive yellow, medium grained, some fine sand, little coarse sand, little fine subrounded to well rounded gravel, trace coarse subangular to well rounded gravel, trace silt, loose, dry	135 – -
- 55 - - - - - 60						GRAVELLY SAND: 2.5Y 6/6 olive yellow, some medium sand, some fine sand, little coarse sand, little coarse subangular to rounded gravel, little fine subangular to rounded gravel, trace silt, loose, dry	130 -
- - - 65							125 - - - - 120 -
- 70 -						SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace to little coarse sand, trace coarse subrounded	- - - 115 –
- - 75 -						gravel, trace fine subrounded to rounded gravel, trace silt, loose, dry	- - 110 -
- 80 -						gravel, trace silt, loose, dry  SAND: 2.5Y 6/4 light vellowish brown, medium grained.	105 -
- - 85 - -							100 -
- 90 - - - - - 95						GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium grained sand, little coarse sand, little fine sand, little coarse subrounded to rounded gravel, little fine subrounded to rounded gravel, little silt, loose, dry	95 -

Proje	ect Name	: J-2 RANGE					Location: Jefferson Road, N. of Barlow		
Nort	hing: M	1: 4619754.17,	M2: 46	19754.22			Easting: M1: 374180.56, M2: 374180.	56	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-									ອ∪ <del>-</del> -
- 100 - - - - 105 -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, little coarse sand, little fine subrounded to rounded gravel, trace coarse rounded gravel, trace silt, loose, dry		85 - - - - 80 -
- 110						_	SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, little fine sand, little fine subrounded to well rounded gravel, grace coarse rounded gravel, trace silt, loose, damp		75 -
- 115 - - - - - 120							SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, damp	¥	- 1
- - - - 125							SAND: 2.5Y 6/6 olvie yellow, medium grained, some fine sand, little coarse sand, little fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet	*	65 -
- - - 130						_			60 -
- - - - 135							GRAVELLY SAND: 2.5Y 6/6 olive yellow, some fine grained sand, little coarse sand, little medium sand, little coarse subrounded to well rounded gravel, little fine subrounded to well rounded gravel, trace silt, loose, wet		55 - - -
-							SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, wet		50 - -
- 140 - - -						<u>-</u>	SAND: 2.5Y 5/6 light olive brown, fine and medium grained, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine rounded gravel, trace silt, loose, wet		45 – -
- 145 - - -								In-situ Soli	40 -



Proje	ect Name	: J-2 RANGE					Location: Jefferson Road, N. of Barlow		
Nort	hing: M	1: 4619754.17,	M2: 46	19754.22			Easting: M1: 374180.56, M2: 374180.5	56	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - -							SAND: 2.5Y 5/5 light olive brown, fine and medium grained, trace to little coarse sand, trace coarse rounded gravel, trace fine rounded to well rounded gravel, trace silt, loose, wet		35 -
- 155 - - - - - 160						_	SAND: 2.5Y 6/6 olive yellow, medium grained, some fine sand, little coarse sand, little fine rounded to well rounded gravel, trace coarsse rounded to well rounded gravel, trace silt, loose, wet		30 -
- 165							SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded to well rounded gravel, trace silt, loose, wet		25 -
- - - 170						-	SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,		20 -
- - - 175							little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, wet		15 -
- - - 180						_	SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,		5-
- - - 185							little medium sand, trace coarse sand, trace coarse rounded to well rounded gravel, trace fine rounded to well rounded gravel, trace silt, loose, wet		0-
- - - 190						_	SAND: 2.5Y 6/4 light yellowish brown, fine grained,		-5-
- - - 195							some medium sand, trace coarse sand, trace coarse subangular to well rounded gravel, trace fine subrounded to well rounded gravel, trace silt, loose, wet		-10 -
- 200 -						_	SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet		-15 -



Project Na	me: J-2 RANGE				Location: Jefferson Road, N. of Barlow		
Northing: [	M1: 4619754.17,	M2: 4619754.	.22		Easting: M1: 374180.56, M2: 374180.	56	
Depth ft (BGS) Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	Gamm CF L Condu 입 2 6	ictivity 2	OSCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 205 - 210 - 210 - 215 - 220					SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet	Bentonite Seal	-20 - -25 - -30 -
- 225 230			SP	PSM :	SAND: 2.5Y 5/6 light olive brown, fine grained, little coarse sand, little medium sand, little fine subrounded to well rounded gravel, trace coarse soubrounded to rounded gravel, trace to little silt, loose, wet  GRAVELLY SAND: 2.5Y 5/6 light olive brown, fine grained sand, little medium sand, trace coarse sand, little coarse rounded gravel, little fine rounded to well rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, trace coarse sand, little fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, little	900 WO	-35 - -40 - -45 -
- 235 - 235 240					coarse sand, little medium sand, trace to little silt, trace fine subrounded to rounded gravel, loose, wet  SAND AND GRAVEL: 2.5Y 5/6 light olive brown, some fine grained sand, little coarse sand, little medium sand, some fine subrounded to well rounded gravel, little coarse subrounded to well rounded gravel, trace to little silt, loose, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, trace coarse sand, trace to little silt,	Institution	-50 - -55 -
- 245 250			SP		trace fine rounded gravel, loose, wet  SAND: 2.5Y 5/5 light olive brown, fine grained, trace to	Intentite Seal	-60 <del>-</del>
- 255					SAND: 2.5Y 5/5 light olive brown, line grained, trace to little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet		-65 <del>-</del>



Proje	ect Name	: J-2 R	ANGE					Location: Jefferson Road, N. of Barlow		
Nort	hing: M′		54.17,	M2: 46	19754.22			Easting: M1: 374180.56, M2: 374180.	56	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 260 265 265						SPSM		SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, trace medium sand, trace to little silt, trace coarse rounded to well rounded gravel, trace fine rounded to well rounded gravel, loose, wet	5m oor	-75 - -75 - - -80 -
- 270 - 270 275										-85 - -85 - - -90 -
- 280 								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace to little silt, trace coarse subrounded to well rounded gravel, trace fine subrounded to well rounded gravel, loose, wet		-95 - -95 - -
- 285 - - - - - 290						SP	_	GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some fine grained sand, little coarse sand, little medium sand, little coarse subrounded to well rounded gravel, little fine subrounded to well rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/6 olive yellow, coarse and medium	-	- -100 - - - -
- - - - 295							_	grained, little fine sand, little fine subrounded to well rounded gravel, trace coarse subrounded to well rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/6 olive yellow, fine and medium grained,		-105 - - - - -110 -
- - 300 -							_	trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/3 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet	-	- - - -115 –
- 305 - -							_	SAND: 2.5Y 6/3 light yellowish brown, fine grained, little medium sand, trace coarse sand, little coarse subangular to well rounded gravel, little fine subrounded to well rounded gravel, trace silt, loose, wet	lin-altu Soil	- - -120 - -

Proje	ect Name	: J-2 RANGE					Location: Jefferson Road, N. of Barlow		
Nort	hing: M	1: 4619754.17,	M2: 46	19754.22			Easting: M1: 374180.56, M2: 374180.5	56	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - - - -					SPSM	:: ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !	GRAVELLY SAND: 2.5Y 6/6 olive yellow, fine grained sand, trace to little coarse sand, trace to little medium sand, some fine subangular to well rounded gravel, trace to little coarse subangular to well rounded gravel, trace to little silt, loose, wet		- -125 - - - -
- 315 - - - - - 320					SP		SAND AND GRAVEL: 2.5Y 6/4 light yellowish brown, some fine grained sand, little coarse sand, little medium sand, some fine subangular to well rounded gravel, little coarse subangular to well rounded gravel, trace silt, loose, wet		- -130 – - - -
- - -					SM	t	GRAVELLY SAND: 5Y 4/4 olive, little coarse grained sand, little medium sand, little fine sand, little coarse subangular to well rounded gravel, little fine subangular to well rounded gravel, little silt, trace clay, loose, wet  GRAVELLY SAND: 5Y 5/4 olive, little coarse grained		-135 - - - - -
- 325 - - -					SPSM	t : : : : : : : : : : : : : : : : : : :	sand, little medium sand, little fine sand, little coarse subangular to well rounded gravel, little fine subangular to well rounded gravel, trace to little silt, trace clay, loose, wet  GRAVELLY SAND: 5Y 4/4 olive, some fine grained		- -140 - - -
- 330 - -						:	sand, little coarse sand, little medium sand, little coarse subangular to well rounded gravel, little fine subangular to well rounded gravel, trace to little silt, trace clay, loose, wet  GRAVELLY SAND: 2.5Y 4/1 dark gray, some fine		- -145 - - -
- 335 - -						:	grained sand, little coarse sand, little medium sand, little coarse angular to well rounded gravel, little fine angular to well rounded gravel, little silt, trace clay, loose, wet	-	- -150 - - - -
- 340 - - -					SM	0	GRAVELLY SAND: 2.5Y 4/1 dark gray, some fine grained sand, little coarse sand, little medium sand, little coarse angular to well rounded gravel, little fine angulart ro well rounded gravel, little silt, trace clay, loose, wet.  BEDROCK: Uniform gravel lithology from 345 to 346.2		- -155 <del>-</del> - -
- 345 - - -					BR	.,\\'.,\\ f	ft bgs: light gray granite (probable bedrock lithology); refusal and top of bedrock at 346.20 ft bgs		- -160 - - -
- 350 - - -							Notes: 1. Well Depths MW-296M1: 265.39 ft (BGS) MW-296M2: 225.29 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths	-	- -165 – - -
- 355 - - - - - 360							3. Scheding its MW-296M1: 10.00 ft MW-296M2: 10.00 ft 4. Screen Intervals MW-296M1: 255.08 - 265.08 ft (BGS) MW-296M2: 214.98 - 224.98 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 186.29 ft (MSL)		- -170 - - - -
- 300							Printed on 11/01/06	_	- -175 –

							<b>50 IL</b>	, 111	W-300			
Projec	ct Name	: J-2	RANGE						Location:			
North	ing: M	1: 461	8935.07, N	/12: 4618	8935.12,	M3: 4	461893	35.17	Easting: M1: 374097.26, M	2: 374097.26, N	M3: 374097.2	26
Drillin	g Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL	): M1: 171.21, M2: 171.21,	M3: 171.21 @	Top PVC	
Drillin	g Equip	ment: [	Dual Air R	otary		We	ell Deptl	h ft (BG	S): M1: 303.70, M2: 207.90	), M3: 145.38		
Drillin	g Metho	d: Air	r-Rotary			BH	l Depth	/Diam: (	340.40 ft (BGS), 8.00 in.	First Water ft (B	3GS): 103.1	
Samp	ling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date: 1	1/24/2003 - 01/27/2004	Well Diameter (	(in.): 2.50	
Const	t. Materi	als S	SCH 80 P\	/C		Pro	oject Nu	ımber:	35AY5301	Static Water ft (	BTOC): 98.7	3
Logge	ed by: D	. Mel	cher Re	viewed b	y: Larry	Pani	nell, P	G	Completion: Flushmount	Date Measured	: 09/25/200	6
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CP: 20 45 Conduc 2 6	S 70 tivity	USCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)
-											M1 M2 M3	-
-0 - -							SM		GRAVELLY SAND: 2.5Y 4/4 olive brigrained sand, little medium sand, little coarse rounded gravel, little fine roun silt, trace organics, loose, dry	fine sand, little		170 –
- -5 -							SP		SILTY SAND: 2.5Y 5/6 light olive bro grained sand, little medium sand, trace trace fine rounded gravel, trace organ	e coarse sand,		-
-									SAND: 2.5Y 5/4 light olive brown, co grained, little fine sand, little fine roun coarse rounded gravel, trace silt, loos	ded gravel, trace e, dry		165 - - -
- 10 -									SAND: 2.5Y 5/4 light olive brown, me grained, little coarse sand, little coarse trace fine rounded gravel, trace silt, lo	e rounded gravel, lose, dry		160 -
-									SAND: 2.5Y 6/6 olive yellow, fine and trace coarse sand, trace coarse round fine rounded gravel, trace silt, loose, (	ded gravel, trace dry		-
- 15 - - -									GRAVELLY SAND: 2.5Y 6/8 olive ye grained sand, little coarse sand, little some coarse rounded to well rounded rounded to well rounded gravel, trace	medium sand, I gravel, little fine		- 155 - - -
- 20 - - -									SAND: 2.5Y 6/6 olive yellow, fine gra sand, trace coarse sand, little fine sub rounded gravel, trace coarse subroun- gravel, trace silt, loose, dry	prounded to well		150 -
- 25 - - -										1		- 145 - -
- 30 - - -							NACM		SAND: 2.5Y 5/6 light olive brown, fin- grained, little fine subangular to round coarse subangular to rounded gravel, dry      GRANITE BOULDERS: Changes in suggest multiple boulders ranging in s	led gravel, trace trace silt, loose, righ pressure		140 -
- - 35 -											20000000000000000000000000000000000000	135 -

Proj	ect Name	: J-2 RANGE						Location:	
Nort	thing: M1	1: 4618935.07, M	2: 46189	35.12,	M3: 40	61893	5.17	Easting: M1: 374097.26, M2: 374097.26, M3: 374097.26	;
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Condu	PS	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - - 40 -								9M W	130 -
- - 45 - -						SP		GRAVELLY SAND: 2.5Y 6/6 olive yellow, some medium grained sand, little coarse sand, little fine sand, little coarse subrounded to well rounded gravel, little fine subrounded to well rounded gravel, trace silt, loose, dry	- 125 - - - -
- 50								SAND: 2.5Y 6/7 olive yellow, fine grained, some medium sand, trace coarse sand, little fine subrounded to well rounded gravel, trace coarse rounded gravel, trace silt, loose, dry	- 120 - - -
- 55								SAND: 2.5Y 6/6 olive yellow, fine and medium grained, little coarse sand, little fine rounded to well rounded gravel, trace coarse rounded gravel, trace silt, loose, dry	- 115 - - -
- 60 - -								SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse snad, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry	- 110 - - -
- 65 - -									- 105 - - -
- 70 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry	- 100 – - -
- 75 - - -									95 -
- 80 -									90 -



Proje	ect Name	: J-2	RANGE					Location:		
Nort	hing: M1	: 4618	935.07, M	2: 4618	935.12, M3: 4	61893	5.17	Easting: M1: 374097.26, M2: 374097.26,	M3: 374097	7.26
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	a
- - 85 - - - -								SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry		85 –
- - - - 95 -							_	SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry		80 - - - - 75 -
- 100 - - - - - 105							_		In-altu Soil	▼ . 70 - ↓ .
- - - - 110							_	SAND: 2.5Y 6/4 light yellowish brown, fine to coarse grained, trace to little fine rounded to well rounded gravel, trace coarse rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, trace fine angular to		65 - - - - - - -
- - - 115 -								rounded gravel, trace silt, loose, wet		- - - 55 –
- 120 - -							_	SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subangular to rounded gravel, trace silt, loose, wet		50 –
- 125 - -										45 –



Proje	ect Name	: J-2	RANGE					Location:			٦
Nort	hing: M1	1: 46189	935.07, M	2: 4618	935.12, M3: 4	61893	5.17	Easting: M1: 374097.26, M2: 374097.26,	M3: 3740	97.26	1
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construc Diagrar	9 ∣	T,
- - 130 -									Bentonite Seal	40	
- - 135 - -										35	; -
- - 140 - -							_	SAND: 2.5Y 5/6 light olive brown, fine grained, some medium sand, trace coarse sand, trace coarse subangular to well rounded gravel, trace fine subangular to well rounded gravel, trace silt, loose, wet GRAVELLY SAND: 2.5Y 5/6 light olive brown, some fine grained sand, little coarse sand, little medium sand,	0W 00#	30	-
- - 145 - -							ſ	little coarse subangular to well rounded gravel, little fine subangular to well rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, some medium sand, trace to little coarse sand, trace coarse		25	;
- - 150 - -							_	subrounded to well rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to well rounded gravel, trace silt, loose, wet		20	- - - ) - - -
- - 155 - - -										15	; - -
- 160 -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, wet		10	- - ) - - - -
- 165 - - - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse subrounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet	Insitu Soil	5	5-
- 170 - -							_	SAND: 2.5Y 4/3 light olive brown, fine grained, little medium sand, trace coarse sand, trace coarse subrounded gravel, trace fine subangular to well rounded gravel, trace silt, loose, wet		0	)-



Proje	ect Name	: J-2 RAN	 BE				Location:		
Nort	hing: M1	l: 4618935.07	, M2: 4618	3935.12, M3: 4	61893	5.17	Easting: M1: 374097.26, M2: 374097.26,	M3: 374097.	26
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 -							SAND: 2.5Y 4/3 olive brown, fine grained, little medium sand, trace coarse sand, trace fine subangular to rounded gravel, trace silt, loose, wet		-5 -
- 180 - 180 -						_	SAND: 2.5Y 4/3 olive brown, fine grained, trace coarse sand, trace medium sand, trace coarse subangular to well rounded gravel, trace fine subangular to well rounded gravel, trace silt, loose, wet		-10 -
- 185 - - - - - 190								1000	-15 <b>-</b>
- - - - 195							SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, trace coarse subrounded to well rounded gravel, trace fine rounded to well rounded gravel, trace silt, loose, wet	Bentonite Seal	-20 <del>-</del>
- 200							GRAVELLY SAND: 2.5Y 5/4 light olive brown, some fine grained sand, little coarse sand, little medium sand. little coarse rounded to well rounded gravel, little fine	000 Mg	-25 - - - -30 -
- 205 -							rounded to well rounded gravel, trace silt, loose, wet	400 Wg	-35 -
- 210 					SPSM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, trace fine subrounded to well rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace to little silt, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, loose, wet	- <b>1</b>	-40 <del>-</del>
- - 215 - -									-45 - -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	l: 4618	935.07, M	2: 4618	935.12, M3: 4	61893	5.17	Easting: M1: 374097.26, M2: 374097.26,	M3: 374097.26	3
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace to little silt, trace coarse subrounded gravel, trace fine subrounded to rounded gravel, loose, wet		- -50 - -
- 225 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, little coarse rounded to well rounded gravel, trace fine rounded to well rounded gravel, trace to little silt, loose, wet		-55 <del>-</del>
- - 230 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, trace to little silt, trace coarse subrounded gravel, trace fine rounded gravel, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,		-60 <del>-</del>
- 235 -								some medium sand, trace coarse sand, trace to little silt, trace coarse subrounded to rounded gravel, trace fine subrounded to well rounded gravel, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace to little silt, trace coarse rounded gravel, trace fine rounded gravel, loose, wet		-65 —
- 240						SP		GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, little coarse grained sand, little medium sand, little fine sand, little coarse rounded to well rounded gravel, little fine rounded to well rounded gravel, trace silt, loose, wet		-70 <del>-</del>
- 245 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained,	198	-75 -
- - 250 -						SPSM		some medium sand, trace coarse sand, trace to little silt, trace fine subrounded to rounded gravel, loose, wet SAND: 2.5Y 6/8 olive yellow, fine grained, trace coarse sand, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet	in-shir	-80 -
- - 255 -										-85 —
- 260 -						SPSM		GRAVELLY SAND: 2.5Y 6/8 olive yellow, some fine grained sand, little coarse sand, little medium sand, little coarse rounded to well rounded gravel, little fine rounded to well rounded gravel, trace to little silt, loose, wet		-90 <del>-</del>
- - 265								··		]

Proi	ect Name	e: J-2 F	RANGE				141 44	Location:		
				2: 4618	935.12, M3: 4	61893	5.17	Easting: M1: 374097.26, M2: 374097.26,	M3: 374097.2	6
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	O/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 270								SAND: 10YR 4/6 dark yellowish brown, fine grained,		-95 <del>-</del> -
- - - 275 - -								little medium sand, trace coarse sand, trace to little silt, trace fine rounded gravel, loose, wet		-100 - - - - -105 - -
- 280 - - - - - 285 -						SM		SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, trace medium sand, little silt, loose, wet		-110 - 
- - 290 - - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, little silt, loose, wet	Bentonite Seal	- - -120 – -
- 295 - - - - 300									8w oor	- -125 - - - -
- - - - 305										-130 - 
310								SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, little silt, trace		-



Proje	ect Name	: J-2 R	ANGE					Location:		
Nort	hing: M1	I: 461893	5.07, M	12: 4618	935.12, M3: 4	61893	5.17	Easting: M1: 374097.26, M2: 374097.26,	M3: 374097.	26
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-						SPSM		fine subrounded to rounded gravel, loose, wet  GRAVELLY SAND: 5Y 4/4 olive, little coarse to fine grained sand, little coarse subangular to subrounded gravel, little fine subangulr to rounded gravel, trace to little silt, loose, wet		-140 – - - -
- 315 - - -								intile Silt, 100Se, wet		-145 - - - -
- 320 - - - - - 325						SM		GRAVELLY SAND: 5Y 4/4 olive, little coarse to fine grained sand, little coarse subangular to rounded gravel, little fine subangular to rounded gravel, little silt, trace clay, loose, wet	Inellu Soil	-150 - - - -
- - - - - 330										-155 - - - -
- - - - 335								SAND: 5Y 4/4 olive, medium and fine grained, little coarse sand, little fine angular to well rounded gravel, trace coarse subangular to rounded gravel, little silt, trace clay, loose, wet		-160 - -
- - - - 340										-165 <del>-</del>
-								Notes: 1. Well Depths NW 2004: 202 70 ft (PCS)		-170 - - -
- 345 - - -								MW-300M1: 303.70 ft (BGS) MW-300M2: 207.90 ft (BGS) MW-300M3: 145.38 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-300M1: 9.99 ft MW-300M2: 10.00 ft		-175 - - - -
- 350 - -								MW-300M3: 10.00 ft 4. Screen Intervals MW-300M1: 293.03 - 303.02 ft (BGS) MW-300M2: 197.23 - 207.23 ft (BGS) MW-300M3: 135.31 - 145.31 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 171.38 ft (MSL)		-180 - -

Project Name: J-2 RANGE  Northing: M1: 4619021.84, M2: 4619021.9  Drilling Contractor: D. L. Maher Co.  Drilling Equipment: Dual Air Rotary  Drilling Method: Air-Rotary  Sampling Method: Stainless Steel Bailer  Const. Materials SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  (SB) Juno O Mong Air Rotary  Gamma CPS  Conduct  CPS  CO						
Drilling Contractor: D. L. Maher Co.  Drilling Equipment: Dual Air Rotary  Drilling Method: Air-Rotary  Sampling Method: Stainless Steel Bailer  Const. Materials SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  (S Sampling Method: SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  (S Sampling Method: SCH 80 PVC  Conduct Sampling Method: SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  (S Sampling Method: SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  (S Sampling Method: SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  20 45 Conduct  20 45  Con			Location:			
Drilling Equipment: Dual Air Rotary  Drilling Method: Air-Rotary  Sampling Method: Stainless Steel Bailer  Const. Materials SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  (S Symple Place of Conduct C	94		Easting: M1: 373921.24, I	M2: 373921.24	4	
Drilling Method: Air-Rotary  Sampling Method: Stainless Steel Bailer  Const. Materials SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  Gamma CPS  Conduct  CPS  20 45  Conduct  2 6	Elevation	ft (MSL): I	M1: 176.63, M2: 176.63 (	@ Top PVC		
Sampling Method: Stainless Steel Bailer  Const. Materials SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  Sample Der Gumts  CPS  20 45  Conduct  Conduct  Conduct  Const. Materials SCH 80 PVC  Reviewed by: Larry  Gamma  CPS  20 45  Conduct  2 6	Well Dep	th ft (BGS):	M1: 310.42, M2: 205.11			
Const. Materials SCH 80 PVC  Logged by: D. Melcher Reviewed by: Larry  Gamma Samble Interval Seconduce  Samble Interval Seconduce  Samble Interval Seconduce  CPS Conduct  20 45 Conduct  2 6	BH Depth	n/Diam: 338	8.53 ft (BGS), 8.00 in.	First Water ft (B	GS): 109	
Logged by: D. Melcher  Reviewed by: Larry  Gamma Symple ID Blow Conduct  Sample ID/FID  April 10 FID/FID  Conduct  CPS Conduct  2 6	Start/End	Date: 12/	08/03 - 02/11/04	Well Diameter (	(in.): 2.50	
Gamma Sample Interval Recovery Sample ID/FID PID/FID PID/FID	Project N	umber: 35	AY5301	Static Water ft (	BTOC): 108.4	10
-0	Pannell, F	PG C	completion: Flushmount	Date Measured	: 11/15/04	
-	S S S S S S S S S S S S S S S S S S S		Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
					M1 M2	180 -
-5 -5	ML GPGN	/ C □ tra	ILT: 2.5Y 4/4 olive brown, little fine gace coarse sand, trace medium sanbrounded gravel, trace fine subroun avel, trace clay, trace organics, very	l, trace coarse ded to rounded		175 -
	SP	SI SI	ANDY GRAVEL: 2.5Y 4/4 olive brow ubrounded to well rounded gravel, litt ubrounded to well rounded gravel, so ace to little silt, loose, dry	le fine	333333333333333333333333333333333333333	
		fir tra	AND: 2.5Y 5/5 light olive brown, mene sand, trace coarse sand, little fine ace coarse rounded to well rounded ose, dry	rounded gravel,	33333333333333333333333333333333333333	170 -
- 10 	SPSM	gr	RAVELLY SAND: 2.5Y 4/4 olive bro rained sand, little medium sand, little parse subrounded to well rounded gr ubrounded to rounded gravel, trace to y	fine sand, some avel, little fine	1   000   00	165 -
- 15 	SP	co fir	RAVELLY SAND: 2.5Y 5/4 light olivorarse grained sand, little medium sar ne sand, some fine rounded gravel, tubrounded to rounded gravel, trace s	nd, trace to little race coarse	.	160 -
		m lit	RAVELLY SAND: 2.5Y 5/5 light oliv ledium grained sand, little coarse sar tle coarse subrounded to rounded gr ubrounded to rounded gravel, trace s	nd, little fine sand, avel, little fine	1   333   33	155 – 155 –
					333333333333333333333333333333333333333	150 -
- 30   - 35		9	AND: 2.5Y 5/5 light olive brown, me	dium grained	at wo	145 - - -



						171 77 -			
Proj	ect Name	≕ J-2 RANC	)E				Location:		
Nor	thing: M	1: 4619021.8	4, M2: 46	619021.94			Easting: M1: 373921.24, M2: 373921.	.24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 40							o well rounded gravel, trace to little fine rounded to well ounded gravel, trace silt, loose, dry	333333333333333333333333333333333333333	140 -
- - - 45 -						t t	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, race coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, dry		135 -
- 50 - - - - - 55						t t	SAND: 2.5Y 6/7 olive yellow, fine and medium grained, race to little coarse sand, trace to little coarse subrounded to rounded gravel, trace fine rounded to well rounded gravel, trace silt, loose, dry		125 -
- - - - - 60								30000000000000000000000000000000000000	120 -
- - - 65 -						l I	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, ittle coarse sand, trace to little fine subrounded to ounded gravel, trace coarse subrounded gravel, trace silt, loose, dry		115 -
- - 70 -						:::::::::: a	SAND: 2.5Y 6/5 light olive yellowish brown, medium and fine grained, little coarse sand, trace fine rounded gravel, trace silt, loose, dry		105 -
- 75 - -									100 -
- 80 -						(1000000 a	SAND: 2.5Y 6/5 light olive yellowish brown, medium and fine grained, little coarse sand, little fine subrounded to rounded gravel, trace coarse		95 –

Proje	ect Name	≕ J-2 RAN	IGE				Location:		
Nort	hing: M	1: 4619021	.84, M2: 4	619021.94			Easting: M1: 373921.24, M2: 373921.	24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 85 -							subrounded gravel, trace silt, loose, dry		90 -
- - 90 - -							GRAVELLY SAND: 2.5Y 5/5 light olive brown, some coarse grained sand, some medium sand, little fine sand, little coarse subrounded to rounded gravel, little fine subrounde to rounded gravel, trace silt, loose, dry	-	85 -
- 95 - - - - - 100							SAND: 2.5Y 6/5 light yellowish olive brown, medium grained, some coarse sand, little fine sand, little fine subrounded gravel, trace coarse subrounded gravel, trace silt, loose, dry		80 -
- - - - 105									75 -
- - - 110 -					SPSM		SAND: 2.5Y 5/5 light olive brown, medium grained, some coarse sand, trace fine subrounded gravel, trace to little silt, loose, wet	-	70 - - - - 65 -
- 115 - - -									60 -
- 120 - - - - - 125									55 <b>-</b>
125					SP	3333333	SAND: 2.5Y 5/5 light olive brown, medium and coarse grained, little fine sand, some fine subangular ot subrounded gravel, trace silt, loose, wet	log l	50 -

Proje	ect Name	e: J-2	RANGE				Location:		
Nort	hing: M	1: 4619	021.84,	M2: 46	19021.94		Easting: M1: 373921.24, M2: 373921.2	24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 130 - 135 - 140							SAND: 2.5Y 5/5 light olive brown, fine grained, some medium sand, some coarse sand, trace fine subrounded gravel, trace silt, loose, wet	Insitu	45 -
- 140 - - - - 145 -						SM	SAND: 2.5Y 5/6 light olive brown, fine grained, some medium sand, trace coarse sand, little silt, loose, wet		35 -
- - 150 - - -							SAND: 2.5Y 6/4 light olive brown, fine grained, some medium sand, trace coarse sand, little silt, loose, wet		25 -
- 155 - - - - - 160									20 -
- - - 165 -									15 -
- - - 170 - -							SAND: 2.5Y 6/5 light yellowish brown, fine grained, some slit, trace to little medium sand, trace coarse sand, trace clay, loose, wet		5-



			DANIOE							
-			RANGE					Location:		
Nor	thing: M		9021.84,	M2: 46	519021.94			Easting: M1: 373921.24, M2: 373921	.24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	- 6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 175 - 180 - 185 - 190 - 195						SPSM		SILTY SAND: 2.5Y 5/4 light olive brown, some fine grained sand, trace to little medium sand, trace coarse sand, trace clay, loose, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, trace to little medium sand, trace coare sand, trace to little fine subrounded to rounded gravel, trace	Bentonite Steal  Benton	-10152020 -
- 200 205 205								subrounded to rounded coarse gravel, loose, wet	eno ma	-25 - -25 - - -30 -
- 210 - - - - - 215 -						SP		SAND: 2.5Y 6/5 light olive yellowish brown, fine to coarse grained, little fine subangular to subrounded gravel, trace coarse subrounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace to little fine sand, little fine subrounded to rounded gravel, trace coarse subangular gravel, trace silt, loose, wet		-35 - -35 - - -



Proje	ect Name	: J-2	RANGE				Location:		
Norti	hing: <b>M</b> 1	1: 4619	021.84,	M2: 46	319021.94		Easting: M1: 373921.24, M2: 373921.2	24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 - -							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, little fine sand, little fine subrounded to rounded gravel, trace coarse well rounded gravel, trace silt, loose, wet		-45 -
- 225 -									- - -50 -
- 230							SAND: 2.5Y 5/4 light olive brown, fine to coarse grained, little fine subangular to subrounded gravel, trace coarse subrounded gravel, trace silt, loose, wet		-55 —
- 235									-60 <del>-</del>
- 240 - - - 245							SAND: 2.5Y 5/4 light olive brown, fine to coarse grained, little subrounded to rounded gravel, trace silt, loose, wet		-65 - -
- 250							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, little fine sand, little fine subrounded to rounded gravel, trace coarse subrounded gravel, trace silt, loose, wet		-70 - - -
- - - 255						SPSM	SAND: 2.5Y 6/5 light olive yellowish brown, fine and medium grained, little coarse sand, little to trace silt, trace fine rounded gravel, loose, wet	In-eliu Soil	-75 - - -
- - - 260									-80 - -
- 265						SP	SAND: 2.5Y 5/5 light olive brown, medium grained, little fien sand, little coarse sand, trace to little subrounded to rounded gravel, trace silt, loose, wet		-85 - -

<del></del>							
		e: J-2 RANGE				Location:	
Nort	thing: M	1: 4619021.84,	M2: 46	19021.94		Easting: M1: 373921.24, M2: 373921.24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
-							-90 - -
- 270 - - -					SM	SAND: 2.5Y 6/5 light olive yellowish brown, fine and medium grained, some silt, trace coarse sand, trace clay, loose, wet	-95 - -95 -
- 275 - - - - - 280							100 -
- - - - - 285					SPSM	SAND: 2.5Y 6/5 light yellowish brown, fine and medium grained, trace to little silt, trace coarse sand, loose, wet	105 - - - -
- - - - 290					SM	SAND: 2.5Y 6/4 light yellowish brown, fine grained.	- 110 - - -
- - - 295							1 115 – - - -
- - - 300						SAND: 2.5Y 5/4 light olive brown, fine grained, some	120 -
- - - 305						silt, little medium sand, trace to little coarse sand, "soft", wet	125 -
- - - 310					SP	GRAVELLY SAND: 2.5Y 5/4 light olive brown, some	130 -

Proje	ect Name	≕ J-2 RANGI	<u> </u>				Location:		
Nort	hing: M	1: 4619021.84	, M2: 46	619021.94			Easting: M1: 373921.24, M2: 373921.2	24	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 315 - -						333333 I	coarse grained sand, little medium sand, little fine sand, ittle coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, trace silt, loose, wet		-135 - - - - - -140 -
- - 320 - - - - - - 325						C	GRAVELLY SAND: 2.5Y 5/4 light olive brown, some coarse grained sand, little medium sand, little fine sand, little fine subrounded to roudned gravel, trace to little coarse subrounded gravel, trace silt, loose, wet	Poli	- - -145 - - -
- - - - 330 -						r r	SAND: 2.5Y 6/5 light olive yellowish brown, coarse and nedium grained, littel fine sand, little fine subangular to rounded gravel, trace coarse subangular to subrounded gravel, trace silt, loose, wet		-150 - -150 - - - -155 -
- - 335 - - -							graver, trace siit, 100se, wet		-160 -
- 340 - - - - - - 345							Notes: 1. Well Depths MW-302M1: 310.42 ft (BGS) MW-302M2: 205.11 ft (BGS) 2. SCH 80 PVC Screens		-165 – -165 –
- 343 - - - - 350							3. Screen lengths MW-302M1: 10.10 ft MW-302M2: 10.08 ft 4. Screen Intervals MW-302M1: 299.64 - 309.74 ft (BGS) MW-302M2: 194.35 - 204.43 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 177.05 ft (MSL)		-170 – - - -

									1					
<u> </u>			RANGE						Location:					
<u> </u>			18882.99						Easting: M1: 374197.58					
Drilling (	Contra	ctor:	D. L. Mah	er Co.		Ele	evation f	t (MSL	): M1: 177.74 @ Top PVC					
Drilling I	Equipr	ment: [	Dual Air R	otary #	91-5	We	ell Depth	ft (BC	SS): M1: 213.50					
Drilling I	Metho	d: Aiı	r-Rotary			B⊦	l Depth/	Diam:	337.90 ft (BGS), 8.00 in.	First Water ft (B	(BGS): 114			
Samplin	ng Metl	hod: S	Stainless S	Steel Ba	ailer	Sta	art/End [	Date:	2/19/03 - 02/19/04 Well Diameter (in.):		2	.50		
Const. N	Materia	als S	SCH 80 P\	/C		Pro	oject Nu	mber:	35AY5301	Static Water ft (BTOC): 108.09		09		
Logged	by: D	. Mel	cher Re	viewed b	y: Larry	Pan	nell, P	G	Completion: Flushmount	Date Measured	: 01	1/18	3/06	
Depth ft (BGS)	Per 6 Inches	Sample Interval /Recovery	Sample ID	DIB/BID	Gamma CPS 20 45 Conduct 2 6	70	USCS Class		Lithologic Description and Associated Lithographic S	Symbol			ell ruction ıram	Elevation (ft msl)
- -														180 -
-0 - -							SP		SAND: 2.5Y 6/4 light yellowish brown sand, some fine sand, little coarse sar subrounded to rounded gravel, trace s  SAND: 2.5Y 5/4 light olive brown, son	nd, trace fine silt, loose, dry				- 175 -
-5 -									some fine sand, little coarse sand, little to subrounded gravel, trace to little coato subrounded gravel, trace silt, loose,	arse subangular				- - 170 -
- - 10 - -									GRAVELLY SAND: 2.5Y 5/3 light oliv fine sand, little coarse sand, little medi coarse subangular to rounded gravel, subangular to rounded gravel, trace si	ium sand, little little fine				165 -
- 15 - - -									SAND: 2.5Y 6/6 olive yellow, meidum coarse sand, little fine sand, trace coa rounded gravel, trace fine subrounded gravel, trace silt, loose, dry	rse subrounded to	,			- - 160 -
- 20 - - -							SPGP		SAND AND GRAVEL: 2.5Y 5/4 light of coarse sand, little medium sand, little coarse subangular to rounded gravel, subangular to rounded gravel, trace si	fine sand, some little fine				- - 155 -
- 25 - - - - 30								00000000000			#1 WG			150 –
- 35							SP		SAND: 2.5Y 6/6 olive yellow, some m some fine sand, little coarse sand, little to rounded gravel, trace coarse subroi gravel, trace silt, loose, dry	e fine subangular				- 145 - - -
"														-



Proj	ect Name	e: J-2 RANGE			Location:		
Nor	thing: M	1: 4618882.99			Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 40 -							140 -
- - 45 - -					GRAVELLY SAND: 2.5Y 6/6 olive yellow, some medium sand, some fine sand, little coarse sand, little coarse subrounded to rounded gravel, little fine subrounded to trounded gravel, trace silt, loose, dry	-	130 -
- 50 - - - - - 55					SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, dry		125 - -
- - - - 60					SAND: 2.5Y 6/6 olive yellow, fine grained some medium sand, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to well rounded gravel, trace silt, loose, dry		120 -
- - - 65							115 -
- - - 70							110 -
- 75 -					SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse sand, trace coarse subrounded torounded gravel, trace subangular to rounded gravel, trace silt, loose, dry		105 -
- 80 -							100 -



Proj	ect Name	e: J-2 RANGE					Location:		
Nort	thing: M	1: 4618882.99					Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 85 -							SAND: 2.5Y 6/6 olive yellow, fine grained, some medium sand, trace coarse sand, trace coarse subangular to rounded gravel, trace fine subangular to		95 -
- 90 - -						_	rounded gravel, trace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse sand, trace coarse subrounded to well rounded gravel, trace silt, loose, dry		- - - 85 –
- 95 -									80 -
- 100 - - - - 105							SAND: 2.5Y 6/6 olive yellow, some medium sand, some fine sand, little coarse sand, trace to little fine subangular to well rounded gravel, trace coarse subangular to rounded gravel, trace silt, loose, dry		75 -
- - - 110						_	SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace to little coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, medium grained, some	<b>T</b>	70 -
- - 115						_	coarse sand, some fine sand, trace to little fine subangular to rounded gravel, trace silt, loose, dry  SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, little fine sand, little fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet	<b>T</b>	65 -
- 120 -					SM		SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, little medium sand, trace coarse sand, trace fine rounded gravel, loose, wet		55 -
- 125 -						$  \cdot \cdot \cdot  $	SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, little silt, trace coarse subrounded to rounded gravel, trace fine subrounded to	In-airu Soll	50 -



Proje	ect Name	: J-2 RANGE				Location:		
Nort	thing: M	1: 4618882.99				Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 130 -						rounded gravel, loose, wet		45 –
- - 135 - - -						SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, some silt, trace fine subangular to rounded gravel, loose, wet		40 -
- 140 - - - - - 145						SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, little silt, trace coarse subrounded gravel, trace fine subangular to rounded gravel, loose, wet		35 -
- - - - 150 -						SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, little silt, trace coarse subrounded gravel, trace fine subrounded to well		30 -
- - - 155 -						rounded gravel, loose, wet		25 -
- 160 -					SP	SAND: 2.5Y 6/4 light yellowish brown, fine and medium ygrained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, damp SAND: 2.5Y 5/4 light olive brownd, fine grained, little medium sand, trace coarse sand, little silt, trace coarse subrounded to well rounded gravel, trace fine rounded to well rounded gravel, loose, wet		15 -
- - 165 - -					SP	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, trace silt, loose, wet		10 -
- - 170 - -						SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, trace fine rounded gravel, trace silt, loose, wet		5-



Proje	ect Name	e: J-2 RANGE				Location:		
Nort	hing: M	1: 4618882.99				Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	Gamma CPS Conduc 2 6	s o		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 -								-
- - 180 -					_	SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet		-5 -
- - 185 -						Tourided graver, trace sitt, 1000ct, wet		-10 -
- - 190 -						GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium sand, little coarse sand, little fine sand, little coarse subangular to well rounded gravel, little fine subangular to well rounded gravel, trace silt, loose, wet	-	-15 —
- 195 -					/	SAND: 2.5Y 5/4 light olive brown, some medium sand, some fine sand, little coarse sand, little fine subangular	Bentonite Seal	-20 -
- - 200 -				SPSM		to rounded gravel, trace coarse subangular to rounded gravel, trace to little silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, some medium sand, some fine sand, little coarse sand, little fine subangular to well rounded gravel, trace coarse subangular to rounded gravel, trace silt, loose, wet	-	- - - -25 -
- 205 -						SAND: 2.5Y 6/4 light yellowish brown, fine and medium	900 Wg	-
- - - 210					_	grained, trace coarse sand, trace coarse subangular to subrounded gravel, trace fine subangular to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse subangular to	5w oor	-30 -
- - - 215						rounded gravel, trace fine subangular to well rounded gravel, trace silt, loose, wet		-35 <del>-</del>
-								-40 <b>-</b>



Proje	Project Name: J-2 RANGE Northing: M1: 4618882.99							Location:		
Nort	lorthing: M1: 4618882.99							Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	~		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 -										
- 225 -										-45 - - -50 -
- 230							_	SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet		-55 —
- 235 - - - - 240						SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, little silt, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, loose, wet		-60 -
- 245						SP		GRAVELLY SAND: 2.5Y 6/6 olive yellow, some medium sand, some fine sand, little coarse sand, little coarse subrounded to rounded gravel, little fine subangular to well rounded gravel, trace silt, loose, wet		-65 <del>-</del>
- - - 250						SPSM		SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace to little silt, trace coarse subrounded to rounded gravel, trace fine subrounded to well rounded gravel, loose, wet  SAND: 2.5Y 6/8 olive yellow, fine grained, trace coarse		-70 <del>-</del>
- - - - 255							_	sand, trace medium sand, trace fine subangular to subrounded gravel, trace silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained little		-75 <del>-</del>
- 255							_	medium sand, trace coarse sand, trace fine subangular to rounded gravel, trace silt, loose, wet		-80 <del>-</del>
- - - 265								SAND: 10YR 5/6 yellowish brown, medium grained, little coarse sand, little fine sand, little fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet		-85 <b>-</b>



Proje	ect Name	e: J-2 RANGE				Location:		
Nort	hing: M	1: 4618882.99				Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	nma Log CPS nductivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-						SAND: 10YR 5/6 yellowish brown, fine and medium grained, trace coarse sand, trace silt, loose, wet		-90 <del>-</del>
- 270 -					-	SAND: 10YR 5/6 yellowish brown, fine and medium grained, trace coarse sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet		-95 —
- 275 -						SAND: 10YR 5/6 yellowish brown, fine grained, some medium sand, trace coarse sand, trace fine rounded gravel, trace silt, loose, wet	Insitu Soil	-100 -
- 280 -				SPSM		SAND: 10YR 5/6 yellowish brown, fine grained, trace coarse sand, trace medium sand, trace to little silt, trace coarse well rounded gravel, trace fine rounded to well rounded gravel, loose, wet	-	-105 -
- - 285 - -								-110 -
- - 290 -				SM		SAND: 10YR 5/6 yellowish brown, fine grained, trace medium sand, little silt, loose, wet		-115 —
- - 295 -								-120 -
- - 300				SPSM SM	:   :   /   :   :   :     :   :   :	SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, trace coarse sand, trace to little silt, trace fine rounded gravel, loose, wet  SILTY SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace medium sand, soft, wet		-120
- - - 305 -								-125 -
- - 310				ML		SANDY SILT: 2.5Y 5/4 light olive brown, fine grained		-130 <del>-</del>



Proje	ect Name	≕ J-2 RAN	E E			Location:		
Nort	hing: M	1: 4618882.9	9			Easting: M1: 374197.58		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 315 - -						sand, trace medium sand, trace clay, soft, wet		.135 -
- 320 - - - - 325						SILT: 2.5Y 5/4 light olive brown, some fine sand, trace to little medium sand, trace clay, soft, wet	-	-145 – -
- - - 330 -					CL	CLAY: 5Y 5/4 olive, little coarse angular to subrounded gravel, little fine angular to subrounded gravel, tlittle fine sand, trace coarse sand, trace medium sand, little silt, soft, wet		-150 - -150 - - -155 -
- 335 - - -						CLAY: 5Y 5/4 olive, some fine angular to subangular gravel, little fine sand, trace coarse sand, trace meidum sand, little silt, soft, wet. Uniform gravel and coarse sand lithology (coarse grained light gray granite) highly angular w/ clean faces		-160 -
- 340 - - - - - 345						Notes: 1. MW-305M1 Well Depth 213.50 ft (BGS) 2. SCH 80 PVC 3. MW-305M1 Screen length 10.00 ft 4. MW-305M1 Screen Interval 202.82 - 212.82 ft (BGS) 5. MW-305M1 Slot Size 0.010 in. 6. MW-305M1 Surface Elevation: 177.60 ft (MSL) Printed on 11/01/06	-	-165 -
- 350							-	-170 - - -

<u> </u>			RANGE	40 404	7000.00	140	101700	0.00	Location:	0.074000.04	10.07	4000.0	
			7869.78, N		7869.83,				Easting: M1: 374063.94, M	•			4
			D. L. Mah						): M1: 172.46, M2: 172.46,		y lop	PVC	
			Dual Air R	otary		_			SS): M1: 306.36, M2: 241.96	, I			
			r-Rotary						330.66 ft (BGS), 8.00 in.	First Water ft (B			
			Stainless S		ailer	_			01/20/04 - 03/23/04	Well Diameter (			
<u> </u>			SCH 80 P\						35AY5301	Static Water ft (			31
Logg	ed by: D		cher Re	eviewed b	y: Larry	Par	nell, P	G	Completion: Flushmount	Date Measured	: 01/3	0/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamm. CP. 20 45 Conduc	S 5 70 ctivity	SCS Class		Lithologic Description and Associated Lithographic	Symbol	Const	ell ruction gram	Elevation (ft msl)
											M1	M2 M3	175 - -
-0 -							SM		SILTY SAND: 2.5Y 5/4 light olive brograined sand, little coarse sand, little fine subangular to rounded grave, trackers.	medium sand, little			170 -
- -5 -									SAND: 2.5Y 6/4 light yellowish brown grained, trace coarse sand, trace coar gravel, trace fine subrounded to round silt, loose	se rounded			170 -
- - - 10 -									GRAVELLY SAND: 2.5Y 6/6 olive yel medium grained sand, some fine sand sand, little coarse rounded gravel, little to well rounded gravel, trace silt, loose	d, little coarse e fine subrounded	IN WG		165 - - -
- - - 15							NACM		GRANITE BOULDER				160 -
-							SP		SAND: 2.5Y 6/4 light yellowish brown grained, little coarse sand, little coarse rounded gravel, trace fine rounded gra loose, dry	subrounded to			- - 155 –
- - 20 -									GRAVELLY SAND: 2.5Y 5/4 light oliv medium grained sand, little coarse san some coarse rounded gravel, little fine trace silt, loose, dry	nd, little fine sand,			-
- -									SAND: 2.5Y 7/6 yellow, medium grair sand, trace coarse sand, trace coarse rounded gravel, trce silt, loose, dry	subrounded to			150 - -
- 25 - - - - - 30									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, som gravel, trace fine rounded gravel, trace	e coarse rounded			- - 145 – -
- - - - 35									GRAVELLY SAND: 2.5Y 6/4 light yell some medium grained sand, some fin coarse sand, little coarse angular to rounded grave dry	e sand, little ounded gravel,			- 140 - - -

Proje	ect Name	: J-2 RANG	 E				Location:		
Nort	thing: M1	1: 4617869.78,	M2: 4617	7869.83, M3: 4	61786	9.88	Easting: M1: 374063.94, M2: 374063.94,	M3: 374063.9	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - -40									- 135 - -
- - - 45 -							GRAVELLY SAND: 2.5Y 6/6 olive yellow, some medium grained sand, little coarse sand, little fine sand, some coarse subangular to rounded gravel, little fine subrounded to rounded gravel, trace silt, loose, dry		130 -
- - 50						_	GRAVELLY SAND: 2.5Y 6/6 olive yellow, medium		125
- - - 55 -							grained sand, little fine sand, trace coarse sand, some coarse subangular to rounded gravel, little fine subrounded to rounded gravel, trace silt, loose, dry		120 -
- 60 -									110 -
- 65 - - - - 70							SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, little fine sand, little coarse rounded gravel, trace fine rounded gravel, trace silt, loose, dry	In-aliu Soli	105 -
-							SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace silt, loose, dry		100 -
- 75					NACM SP		GRANITE BOULDER  SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace silt, loose, dry		95 -
- 80 -						_	SAND: 2.5Y 6/6 olive yellow, medium grained, some		



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	1: 46178	869.78, M	12: 4617	869.83, M3: 4	617869	9.88	Easting: M1: 374063.94, M2: 374063.94,	M3: 374063.9	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 85								coarse sand, some fine gravel, trace silt, loose, dry		90
- - - 90 -							_	SAND: 2.5Y 7/6 yellow, medium grained, little coarse sand, little fine sand, little fine gravel, trace silt, very		85 - - -
- - 95 -								dense, slightly moist		80 - - - 75 -
- - 100 - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little fine sand, trace silt, loose, wet		70 -
- 105 - -									▼	65 -
- 110 - - - - 115								SAND: 2.5Y 6/6 olive yellow, medium grained, some coarse sand, little fine gravel, trace silt, loose, wet		60 -
- 120									1 Sea	- 55 - -
- - - 125						SPSM		SAND: 2.5Y 6/6 olive yellow, medium grained, little fine sand, trace to little silt, very dense, wet	Bentonite Seal	50 -
										45 –



Proje	ect Name	: J-2 RAN	IGE				Location:		
Nort	thing: M1	l: 4617869.7	8, M2: 46	17869.83, M3:	461786	9.88	Easting: M1: 374063.94, M2: 374063.94,	M3: 374063.94	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	) SOS		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 130 - - - - - 135							SAND: 2.5Y 6/6 olive yellow, medium grained, some coarse sand, trace to little silt, trace fine subangular to subrounded gravel, very dense, wet	400 Wg	40 -
- - - 140 - -					SP		SAND: 2.5Y 6/6 olive yellow, medium grained, some coarse sand, trace fine subangular to subrounded gravel, trace silt, vey dense, wet	<b>1</b>	35 -
- 145 - - - - 150						_	SAND: 2.5Y 6/6 olive yellow, medium and coarse grained, trace fine gravel, trace silt, dense, wet		25 -
- - 155 - - - - - 160									20 -
- - - - 165 -							GRAVELLY SAND: various collors, coarse grained sand, some medium sand, fine subangular to subrounded gravel, loose, wet		10 -
- 170 -							SAND: 2.5Y 6/6 olive yellow, medium grained, trace coarse sand, trace fine gravel, trace silt, dense, wet		0-

Proje	ect Name	∍: J-2 RAN	GE				Location:		
Nort	hing: M1	1: 4617869.7	3, M2: 461	7869.83, M3: 4	61786	9.88	Easting: M1: 374063.94, M2: 374063.94,	M3: 374063.9	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 -									-5-
- 180 						_	SAND: 2.5Y 6/6 olive yellow, medium grained, little fine sand, trace coarse sand, trace silt, very dense, wet	In-altu Soli	-10 -
- 185 - - - - 190									-15 -
- - - 195						_	SAND: 2.5Y 7/6 yellow, medium grained, some fine sand, trace fine gravel, trace silt, very dense, wet		-20 -
- - - 200						_	SAND: 2.5Y 7/6 yellow, medium and coarse grained,	-	-25 -
- - 205							trace to little fine gravel, trace silt, dense, wet		-30 -
- - 210 -							SAND: 2.5Y 7/6 yellow, fine grained, some medium sand, trace silt, very dense, wet	-	-35 -
- - 215 -									-40 - - - -45 -
ŀ									1



Proi	ect Name	e: J-2 RANGE	<u> </u>			171 77	Location:		
-		1: 4617869.78,		'869.83. M3: 4	61786	9.88	Easting: M1: 374063.94, M2: 374063.94, I	M3: 374063.94	4
$\vdash$			1017	Gamma Log		0.00		Well	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Construction Diagram	Elevation (ft msl)
- 220									-
- - - - 225							SAND: 2.5Y 7/6 yellow, medium grained, little fine sand, trace coarse sand, trace silt, dense, wet; fine to coarse subangular to subrounded gravel @ 226 ft bgs		-50 <del>-</del>
- - - - 230								Bentonite Seal	-55 —
- - - - 235							SAND: 2.5Y 7/6 yellow, medium grained, some fine sand, trace silt, very dense, wet		-60 <del>-</del>
- 240								M 004	-65 <del>-</del>
- - - 245							SAND: 2.5Y 7/4 yellow, coarse grained, some medium sand, little fine sand, trace fine gravel, trace silt, dense, wet		-70 <del>-</del>
- - - 250									-75 - -
- - 255							SAND: 2.5Y 7/6 yellow, medium grained, some fine sand, trace coarse sand, trace silt, very dense, wet		-80 <del>-</del>
- 260									-85 <del>-</del>
- - - - 265							SAND: 2.5Y 7/6 yellow, fine grained, trace coarse sand, very dense, wet		-90 <del>-</del>

							141 44				
$\vdash$			RANGE					Location:			
Nort	hing: M		7869.78, N	12: 4617	869.83, M3: 40	61786	9.88	Easting: M1: 374063.94, M2: 374063.94,	M3: 3	74063.9	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Cons	Well struction gram	Elevation (ft msl)
- - - - 270 -								SAND: 2.5Y 7/6 yellow, fine grained, trace silt, very dense, wet	In-situ Soil	-	- -95 - - - - -
- 275 280										-	-105 —
- - - - 285 -							-	SAND: 2.5Y 7/6 yellow, medium and fine grained, trace coarse sand, trace silt, very dense, wet; fine gravel @ 288 ft bgs			-110 - 
- - 290							_	SAND: 2.5Y 7/6 yellow, fine grained, some medium	Bentonite Seal		110 -
- - - 295								sand, trace fine gravel, trace silt, very dense, wet		-	-120 - - - - -
- 300								SAND: 2.5Y 6/4 light yellowish brown, medium grained,	800 Wg		125 -
- - - 305								some fine sand, trace silt, dense, wet	8W 008	-	-130 <b>-</b> -
- - - 310										-	-135 – - -



Proj	ect Name	: J-2	2 RANGE						Location:		
Nor	thing: M1		7869.78, M	12: 4617	869.83,	M3: 4	61786	9.88	Easting: M1: 374063.94, M2: 374063.94,	M3: 374063.9	4
Depth ft (BGS)	Blow Counts Per 6 Inches Sample Interval (Recovery Counts of the contents of t						USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 315 - - - 320 - - - - 325 -							GM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little fine sand, trace silt, dense, wet	In-situ Soil	-140 - - - -145 - - -150 - - - -155 -
- 330 -							GIW		TILL: Subrounded gravel, medium sands, silts and weathered dark gray/black graniote bedrock		- - - -160 –
- - 335 - - - - - 340 -									Notes: 1. Well Depths MW-307M1: 306.36 ft (BGS) MW-307M2: 241.96 ft (BGS) MW-307M3: 136.02 ft (BGS) WW-307M3: 136.02 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-307M1: 10.01 ft MW-307M2: 10.00 ft MW-307M2: 10.02 ft 4. Screen Intervals MW-307M1: 295.70 - 305.71 ft (BGS) MW-307M1: 295.70 - 241.46 ft (BGS)		-165 - - -165 -
									MW-307M3: 125.80 - 135.82 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 172.86 ft (MSL)	-	-170 -

								), 1VI	.W-310					
Proje	ct Name	: J-2	RANGE						Location:					
North	ing: M	1: 461	7908.93						Easting: M1: 374672.18					
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL	): M1: 152.56 @ Top PVC					
Drillir	ng Equip	ment: [	Dual Air R	otary		W	ell Dept	h ft (BG	SS): M1: 181.68					
Drillir	ng Metho	d: Air	r-Rotary			BH	H Depth	/Diam:	320.20 ft (BGS), 8.00 in.	First Water ft (E	3GS	3): 8	4	
Sam	oling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date: (	02/02/04 - 03/03/04	Well Diameter (	(in.)	: 2	.50	
Cons	t. Materi	als S	CH 80 P\	/C		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	ВТ	OC):	79.01	
Logg	ed by: G	. Joy	ce Re	viewed b	y: Larry	Pan	nell, P	G	Completion: Flushmount	Date Measured	: 0	9/28	3/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamm CP 20 45 Conduc	S 5 70 ctivity	USCS Class		Lithologic Description and Associated Lithographic			W onstr Diag	ruction	Elevation (ft msl)
-														155 -
-0 - - -							SM		SAND: 2.5Y 3/3 dark olive brown, me trace coarse sand, trace fine sand, trac subangular to subrounded gravel, trac loose, dry	ice fine				150 -
-5 - - -							SP		SAND: 10YR 3/4 dark yellow brown, trace to little fine sand, trace coarse s subangular to subrounded gravel, trace	and, trace fine				145 -
- 10 - - -									SAND: 2.5Y 5/6 light olive brown, me trace coarse sand, trace fine sand, trac subangular to subrounded gravel, trace	ice fine				140 -
- 15 - - -									SAND: 10YR 4/3 brown, medium gra fine sand, trace coarse sand, trace sil					135 -
- 20 - - -									SAND: 10YR 4/4 dark yellow brown, trace coarse sand, trace fine sand, trac subangular to subrounded gravel, trac subangular to subrounded gravel, trac	ace fine ce coarse				130 -
- 25 - - -														125 -
- 30 - - - - - 35							SPSM		SAND: 10YR 4/4 dark yellow brown, trace to little fine sand, trace coarse s subangular to subrounded gravel, trace loose, dry	and, trace fine				120 -
- - -							SP		SAND: 10YR 4/4 dark yellow brown, little fine sand, trace coarse sand, trace rounded gravel, trace silt, loose, dry		#1 WG			115 -
- 40 - -														110 -

Proje	ect Name	e: J-2 RANGE				Location:		$\neg$
Nort	hing: M	1: 4617908.93				Easting: M1: 374672.18		$\neg$
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 45 - 45 50 55						SAND: 10YR 4/3 brown, medium grained, little fine sand, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, loose, dry	-	105 -
- - 60 -					SPSM	SAND: 2.5Y 5/4 yellowish brown, medium grained, trace to little fine sand, trace coarse sand, trace fine subangular to rounded gravel, trace to little silt, loose, dry		95 -
- 65 - - - - 70						SAND: 2.5Y 5/6 light olive brown, medium grained, little fine sand, trace coarse sand, trace to little silt, loose, dry  SAND: 2.5Y 5/4 light olive brown, fine grained, some		- 85 - -
- - - 75 -						medium sand, trace coarse sand, trace to little silt, loose, dry		80 - - - - - 75 -
- - 80 - -						SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace fine subangular to subrounded gravel, trace to little silt, loose, slightly moist	•	70 -
- 85 -					SP	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, trace fine subangular to rounded gravel, trace silt, loose, slightly moist	₹	65 -
- 90 - - - - - 95					SPSM	SAND: 10YR 4/3 brown, medium grained, little fine sand, trace coarse sand, little fine subangular to rounded gravel, trace to little silt, loose, wet		60 -



Proje	ect Name	e: J-2 l	RANGE					Location:			
Nort	hing: M		908.93					Easting: M1: 374672.18			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well onstruction Diagram	Elevation (ft msl)
100								SAND: 10YR 4/3 brown, medium grained, some fine sand, trace coarse sand, trace to little silt, loose, wet			55 50
105						SP		SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, trace fine angular to rounded gravel, trace silt, loose, wet	<b>;</b>		45
110						SPSM		SAND: 2.5Y 4/4 olive brown, fine grained, some medium sand, trace coarse sand, trace fine angular to subangular gravel, trace to little silt, loose, wet			4
115 120						SW		GRAVELLY SAND: 2.5Y 4/4 olive brown, little medium grained sand, little coarse sand, little fine sand, some fine angular to subrounded gravel, trace angular to subrounded gravel, trace silt, loose, wet	situ Soil		3
125						SM	: :   1	SILTY SAND: 2.5Y 4/3 olive brown, fine grained sand, trace medium sand, trace coarse sand, trace fine angular to subrounded gravel, little silt, loose, wet	ı		2
130						SP	3333333	SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, trace coarse sand, trace fine angular to subrounded gravel, trace silt, loose, wet	<b>-</b>		2
135											1
140							1	SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, trace coarse sand, trace fine angular to subrounded gravel, trace silt, loose, wet			1
145											



Proj	ect Name	≕ J-2 RANGI					Location:		
Nort	hing: M	1: 4617908.93					Easting: M1: 374672.18		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - - - - 155 - - - - 160							SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, trace coarse sand, trace fine angular to subangular gravel, trace silt, loose, wet		0-
- - 165 - - - - - 170					GP SP	0000000 000000000000000000000000000000	SANDY GRAVEL: fine angular to subrounded gravel, trace coarse angular to subrounded gravel, little coarse grained, trace to little medium sand, trace fine sand, trace silt, loose, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, trace fien subangular to rounded gravel, trace silt, loose, wet	Bentonite Seul	-10 - - - - -15 -
- - - 175 -						\ 	SAND: coarse grained, trace to little medium sand, trace fine sand, little fine subangular to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular to rounded gravel, trace silt, loose, wet	5w one	-20 - - - - - -25 -
- 180 185									-30 -
- - - 190 - -						_	SAND: 2.5Y 5/3 light olive brown, fine grained, little medium sand, trace coarse sand, trace silt, loose, wet		-35 - -35 - -40 -
- 195 - - - - - 200					SPSM		SAND: 2.5Y 5/3 light olive brown, fine grained, trace to little silt, loose, wet		-45 —
[					Sivi		SAND: 2.5Y 5/2 grayish brown, fine grained, little silt, loose, wet		-50 -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M	1: 4617	908.93					Easting: M1: 374672.18		$\Box$
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 - - - - 210 - - - - - 215								SAND: 2.5Y 5/2 grayish brown, fine grained, some silt, loose, wet  SAND: 2.5Y 5/2 grayish brown, fine grained, trace to little silt, loose, wet		-55 - -55 - - -60 -
- 220 220 						SP		SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, trace silt, loose, wet		-65 - -70 -
- - - 230							_	SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, trace silt, loose, wet  SAND: 10YR 5/6 yellowish brown, medium grained, little fine sand, trce coarse sand, trace silt, loose, wet		-75 - - - - -80 -
- 235 - - - - 240								SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, trace silt, loose, wet		-85 <del>-</del>
- - 245 -										-90 - - - - -95 -
- 250 - - - - - 255						SM		SAND: 2.5Y 5/4 light olive brown, fine grained sand, some silt, loose, wet	Institution	100 -



Proje	ect Name	e: J-2	RANGE				Location:		
Nort	hing: M		7908.93				Easting: M1: 374672.18		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 260 - 265 - 270 - 275							SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, loose, wet		-110 -1110 -115 -120 -125
- 290 - 295							SAND: 2.5Y 4/3 olive brown, fine grained, little medium sand, little silt, loose, wet		-135
- 300 - 305						SP	SAND: 2.5Y 5/3 light olive brown, fine grained, little medium sand, trace silt, loose, wet		-145
									-155



Project Nam	e: J-2	RANGE					Location:		
Northing: M	1: 461	7908.93					Easting: M1: 374672.18		
Depth ft (BGS) Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	á	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - 315 - 320					√GP \	<i>[</i>	GRANITE BEDROCK: gray, angular, highly fractured		-160 - - - - - - - - -
- - - - 325							Notes: 1. MW-310M1 Well Depth 181.68 ft (BGS) 2. SCH 80 PVC 3. MW-310M1 Screen length 10.01 ft 4. MW-310M1 Screen Interval 171.40 - 181.41 ft (BGS) 5. MW-310M1 Slot Size 0.010 in.	-	- -170 - - - -
- 330 -							6. MW-310M1 Surface Elevation: 152.60 ft (MSL)  Printed on 01/10/07		-175 - - - - -180 -
- - 335									-

	Project Name: J-2 RANGE Location:												
									Location:				
<u> </u>			9636.73, N		9636.78				Easting: M1: 374362.91, M			1	
			D. L. Mah			EI	evation	ft (MSL	): M1: 186.46, M2: 186.46,	M3: 186.46 @	Top PVC		
Drillin	g Equip	ment: [	Dual Air R	otary		W	ell Deptl	n ft (BC	GS): M1: 265.92, M2: 225.99	9, M3: 205.57			
			r-Rotary			BI	H Depth/	'Diam:	36.85 ft (BGS), 8.00 in. First Water f		3GS): 120		
			Stainless S		ailer	St	art/End I	Date: (	02/03/04 - 05/17/04	Well Diameter (			
Const	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	Static Water ft (BTOC): 115.9		
Logge	ed by: L	. Baeı	rga Re	viewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 09/20/06		
Depth ft (BGS)	Blow Counts Sample Interval //Recovery Sample ID Sample ID COUNTS COUNTS Sample ID COUNTS COU					na Log PS 45 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)	
- - - -0											M1 M2 M3	- - -	
							SP		SAND: 2.5Y 7/4 pale yellow, medium fine sand, loose, dry	grained, trace	***************************************	- 185 – -	
-5 - -	5											180 -	
- 10 - - -									SAND: 2.5Y 5/4 light olive brown, me trace coarse sand, trace fine sand, loc			175 - - -	
- 15 - - - - 20												170 - - - -	
- - -									SAND: 2.5Y 5/4 light olive brown, me coarse sand, trace fine sand, loose, d			165 - - - -	
- 30	30											160 - - -	
- 35									SAND: 10YR 6/4 light yellowish brow grained, little coarse sand, little angula fine gravel, trace fine sand, trace silt, dry	ar to subrounded		- 155 – - -	
<b> </b>												150	



Proj	ect Name	: J-2 RAN	NGE				Location:		
Nort	thing: M1	l: 4619636.7	73, M2: 461	9636.78, M3: 4	61963	6.83	Easting: M1: 374362.91, M2: 374362.91,	M3: 374362.	91
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 40 - - - - - 45 -							SAND: 10YR 6/4 light yellowish brown, medium grained, some coarse sand, little angular to subrounded fine gravel, trace to little fine sand, trace silt, medium dense, dry	H WG	145 -
- - 50 - -						_	GRAVELLY SAND: 2.5Y 7/4 pale yellow, medium grained sand, some coarse sand, little fine angular to subrounded gravel, little fine sand, trace silt, medium dense, dry		135 - -
- 55 - - - - - 60						_			130 -
- - - - 65							SAND: 2.5Y 6/6 olive yellow, medium grained, trace to little fine sand, trace coarse sand, trace silt, medium dense, dry		125 -
- 70 -						_	SAND: 2.5Y 7/4 pale yellow, medium grained, trace to little fine sand, trace coarse sand, trace silt, medium dense, dry	_	115 -
- - 75 -									110 -
- 80 -									105 -



Proje	ect Name	e: J-2	RANGE						Location:		
Nort	hing: M1		36.73, N	12: 4619	636.78, N	M3: 46	61963	5.83	Easting: M1: 374362.91, M2: 374362.91,	M3: 374362	2.91
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma CPS Conduct 2 6	3	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 85 -										000000000000000000000000000000000000000	- - - 100 -
- 90 -									SAND: 2.5Y 8/3 pale yellow, medium grained, trace to little fine sand, trace coarse sand, trace silt, medium dense, dry		95 –
- 95 - - -											90 - - - -
- 100 - - - - 105									SAND: 2.5Y 8/4 pale yellow, medium grained, trace to little fine sand, trace coarse sand, trace silt, medium dense, dry		- 85 - - -
- - - 110									SAND: 2.5Y 7/4 pale yellow, medium grained, little fine		80 - - - -
- - - 115									sand, trace coarse sand, trace silt, medium dense, damp		75 - - - -
- - - 120									SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace silt, medium dense,		¥ 70 -
- - - 125									moist		65 - - - - - 60 -
-											1



Proje	ect Name	e: J-2 F	RANGE					Location:			
Nort	hing: M1	I: 46196	36.73, M	12: 4619	636.78, M3: 4	161963	6.83	Easting: M1: 374362.91, M2: 374362.91,	M3: 37	74362.9	1
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS (		Lithologic Description and Associated Lithographic Symbol	Cons	Vell truction gram	Elevation (ft msl)
- - 130 - - - - - 135								GRAVELLY SAND: 2.5Y 5/4 light olive brown, little coarse grained sand, little medium sand, little fine sand, some fine angular to rounded gravel, trace coarse subrounded gravel, trace silt, loose, wet			55    
- - 140 - - - - - 145								GRAVELLY SAND: 2.5Y 6/6 olive yellow, medium grained sand, little coarse sand, little fine sand, some fine angular to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/4 light olive brown, fine and medium	In-situ Soil		- - - 45 – - -
- - - - 150 -							_	grained, trace coarse sand, trace fine rounded to subrounded gravel, trace silt, loose, wet  GRAVELLY SAND: 2.5Y 6/6 olive yellow, medium grained sand, little coarse sand, trace fine sand, some fine subrounded to well rounded gravel, trace coarse subrounded to rounded gravel, trace silt, loose, wet			40 -
- 155 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace to little coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, loose, wet			30 -
- 160 - - - - - 165								SAND: 10YR 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace silt, medium dense, wet			- 25 - - -
- 170											20 -
-								SAND: 2.5Y 6/4 light yellowish brown ,fine grained, lieelte medium sand, trace coarse sand, trace silt, medium dense, wet			15 <del>-</del>



Proje	ect Name	: J-2 RAN	 GE		, ID.		Location:		
<u> </u>				9636.78, M3: 4	161963	6.83	Easting: M1: 374362.91, M2: 374362.91,	M3: 374362.91	1
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	1 5		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 - -									10 -
- 180 - - - - - - 185							SAND: 2.5Y 7/4 pale yellow, medium grained, trace to little coarse sand, trace fine sand, trace fine angular to subrounded gravel, trace silt, medium dense, wet		5-
- 190 - 195							SAND: 2.5Y 6/6 olive yellow, medium grained, little fine sand, trace coarse sand, trace fine angular to subrounded gravel, trace silt, medium dense, wet	Bentonie Seal	0
- 200							SAND: 2.5Y 5/4 light olive brown, coarse grained, little medium sand, little fine sand, trace fine angular to subrounded gravel, trace coarse angular to subrounded gravel, dense, wet	800 Wg	-10 - -10 - - - -15 -
- 205 - - - -								I institu Soil	-20 <del>-</del>
- 210 - - - - 215 -					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, little silt, medium dense, wet	Bentonite Sea	-25 - - - - -30 -



	WW-515	
Project Name: J-2 RANGE	Location:	
Northing: M1: 4619636.73, M2: 4619636.78, M3: 461963	36.83 Easting: M1: 374362.91, M2: 374362.91,	
Depth ft (BGS) Blow Counts Per 6 Inches Sample Interval //Recovery Sample Id COUNTS Sample Id COUNTS OF CO	Lithologic Description and Associated Lithographic Symbol	Well (# wst)  Construction (# mst)  Diagram
- 220		35 -
- 225		-35 -
- 230	SAND: 2.5Y 5/6 light olive yellow, medium grained, some silt, little fine sand, trace coarse sand, trace fine angular to subrounded gravel, medium dense, wet	-45 -
- 235 		-50 -
- 240 	SAND: 2.5Y 5/6 light olive yellow, medium grained, some silt, little fine sand, trace coarse sand, medium dense, wet	-55 -
- 245 		-60 -
- 250	SAND: 2.5Y 5/6 light olive yellow, coarse grained, some silt, little fine sand, little medium sand, wet	-65 –
- 255 - - - -		-70 -
- 260	SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, little silt, medium dense, wet	
- 265		



Proje	ect Name	e: J-2 RAN	 GE			1/1 // -	Location:		
				9636.78, M3: 4	61963	6.83	Easting: M1: 374362.91, M2: 374362.91,	M3: 374362.9	1
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- -									-80 - -80 -
- 270 270 							SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, little silt, little fine angular to subrounded gravel, medium dense, wet		- -85 - -
- 275 - - -									-90 — -
- 280 - - - - 285					SMSW		SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little silt, little fine angular to subrounded gravel, little coarse angular to subrounde gravel, gravel is predominantly pink granite, dense, wet		-95 - -95 - - -
- - - - 290							SAND: 2.5Y 6/4 light yellowish brown, medium grained,	-	-100 - - - -
- - - - 295						11.11	little coarse sand, little angular to subrounded gravel, trace fine sand, little silt, dense, wet		-105 - - - - -110 -
- - - 300 -					SM		SAND: 5Y 5/3 olive, fine grained, some silt, little angular to subrounded fine gravel, trace coarse sand,	-	-110 - - - -115 -
- - - 305 -							trace medium sand, very dense, wet	In-situ Soil	- - -120 –
- - - 310							SILT: 5Y 5/3 olive, little fine angular to rounded gravel,		- - - -

Proje	ect Name	e: J-2	RANGE						Location:		
Nort	hing: M1	l: 46196	636.73, M	2: 4619	636.78, M	3: 4619	9636	5.83	Easting: M1: 374362.91, M2: 374362.91,	M3: 374362.9	1
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma L CPS Conductiv 2 6	og (	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 315 -							_		trace coarse angular to rounded gravel, little coarse sand, little medium sand, little fine sand, gravel is composed of multiple lithologies, very dense, wet		-125 - - - - -130 - -
- 320 - - - 325 -									SILT: 5Y 5/2 olive gray, little fine angular to rounded gravel, trace coarse angular to rounded gravel, little coarse and, little medium sand, little fine sand, gravel is composed of multiple lithologies, very dense, wet		-135 - - - - -140 -
- 330 - - - - 335 -									SILT: 5Y 5/2 olive gray, little fine angular to rounded gravel, little coarse angular to rounded gravel, little coarse sand, little medium sand, trace fine sand, very dense, wet		-145 - - - - - -150 -
- 340 345 345									Notes: 1. Well Depths MW-313M1: 265.92 ft (BGS) MW-313M2: 225.99 ft (BGS) MW-313M3: 205.57 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-313M1: 10.00 ft MW-313M2: 10.03 ft MW-313M3: 10.50 ft 4. Screen Intervals		-155 — -155 — - -160 —
- - - 350-									MW-313M1: 255.42 - 265.42 ft (BGS) MW-313M2: 215.46 - 225.49 ft (BGS) MW-313M3: 195.07 - 205.57 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 186.42 ft (MSL)		- - -

									W-310				
Proje	ct Name	: J-2	RANGE						Location:				
North	ning: M	1: 461	9551.60, I	M2: 4619	9551.65	s, S: 46	619551	.70	Easting: M1: 374510.27, M	2: 374510.27, 3	S: 3745	510.27	
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation f	t (MSL	): M1: 186.01, M2: 186.01,	S: 186.01 @	Top F	VC	
Drillir	ng Equipi	ment: [	Dual Air R	otary		W	ell Depth	n ft (BG	S): M1: 316.32, M2: 216.33	3, S: 131.55			
Drillir	ng Metho	d: Aiı	r-Rotary			BH	H Depth/	Diam:	337.83 ft (BGS), 8.00 in.	First Water ft (E	BGS): 1	115	
Sam	pling Met	hod: S	Stainless S	Steel Ba	ailer	Sta	art/End [	Date: (	02/25/04 - 04/12/04	Well Diameter	(in.): 2	2.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	mber:	35AY5301	Static Water ft (	BTOC)	: 115.6	64
Logg	ed by: L.	Baeı	ga Re	eviewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 09/2	1/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	C 20 4	na Log PS 45 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic		Cons	/ell truction gram	Elevation (ft msl)
- - -0											M1	M2 S	
-							SPSM		SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, som subrounded gravel, little silt, loose, dr	e fine angular to	<b>A</b> 13		185 -
- -5 -							SP		SAND: 2.5Y 7/4 pale yellow, medium coarse sand, little fine sand, loose, dr				180 –
- 10 -							SWSM		GRAVELLY SAND: 2.5Y 5/4 light oliv grained sand, some fine subangular to gravel, little coarse subangular to sub	o subrounded	-		- - 175 –
- - 15 - - -									little coarse sand, trace fine sand, little	e silt, loose, dry			- - 170 - - -
- 20 - - -							SP		SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, little fine sand, trace		-		- 165 – - -
- 25 - - -													- 160 – - -
- 30 - - -									SAND: 10YR 7/3 yellow, medium grasand, trace fine sand, trace silt, loose		#1 WG		155 - - - -
- 35 - - -									SAND: 2.5Y 7/4 pale yellow, medium coarse sand, little fine sand, loose, dr		#		- 150 - - -
- 40 - -													- 145 - -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	l: 46195	551.60, M	2: 4619	551.65, S: 46°	19551.	70	Easting: M1: 374510.27, M2: 374510.27,	S: 374510.27	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 45 -								SAND: 2.5Y 7/4 pale yellow, medium grained, trace fine sand, trace silt, loose, dry		140 -
- - 50 -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine subrounded gravel, trace silt, loose, dry		135 -
- 55 - - -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace silt, loose, dry		130 -
- 60 - -							_	SAND: 2.5Y 8/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace silt, loose, dry		125 -
- 65 - - - - 70								SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace silt, loose, dry		120 -
- 75								SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, trace silt, loose, dry		115 -
- 80								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace silt, loose, dry		110 -
- - - - 85								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, trace fine sand, trace silt, loose, dry		105 -
<u> </u>								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace silt, loose, dry		100 -
- 90 - - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace silt, loose, dry	Institution	95 - - - -
- 95 -								SAND: 2.5Y 6/4 light yellowish brown, medium grained,		90 -



Proje	ect Name	: J-2	RANGE			. ID.		Location:			
Nortl	hing: M1	l: 46195	551.60, M	12: 4619	551.65, S: 46	19551.	70	Easting: M1: 374510.27, M2: 374510.27,	S: 3	74510.27	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well nstruction iagram	Elevation (ft msl)
- - - - 100 - -								some fine subangular to subrounded gravel, little coarse sand, trace fine sand, trace silt, loose, dry			- - 85 -
- - 105 - - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine subangular to subrounded gravel, little coarse sand, trace fine sand, trace silt, loose, damp	_		- 80 – - -
- 110 - - - - - 115							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine subangular gravel, trace silt, loose, damp			75 - - -
- - - - 120								SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace silt, loose, damp	Bentonite Sea		70 – - -
- - - - 125								SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace silt, loose, damp			65 - - -
- - - - 130							-	SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, little fine sand, trace silt, loose, damp	BM 00#		60 -
- - - - 135								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, trace silt, loose, wet	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		55 - - - - -
- - - - 140									_		50 - - - -
- - - - 145 -						SM		SAND: 2.5Y 6/6 olive yellow, fine grained, some silt, trace coarse sand, little medium sand, loose, wet			45 - - - - - 40 -
- -											



Proje	ect Name	e: J-2 RANG	 E			171 77	Location:	$\neg$
				9551.65, S: 46 <sup>-</sup>	19551.	70	Easting: M1: 374510.27, M2: 374510.27, S: 374510.27	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- 150 -							SAND: 2.5Y 5/4 light olive brown, medium grained, some silt, little coarse sand, little fine sand, loose, wet	35 -
- - - 155 -								30 -
- 160 - -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, loose, wet	25 -
- - 165 - -							In-altu Soil	20 -
- - 170 - -								15 -
- - 175 - -								10 -
- - 180 - -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace to little medium sand, some silt, loose, wet	5- -
- - 185 - -								0-
- - 190 - -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, some silt, loose, wet	-5 - -5 -
- - 195 - -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, loose, wet	-10 <del>-</del>
- - 200 -							SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, loose, wet	-15 -

Proje	ect Name	: J-2 RANGE					Location:		
Nort	hing: M1	1: 4619551.60, M	12: 4619	551.65, S: 461	19551.	70	Easting: M1: 374510.27, M2: 374510.27,	S: 374510.27	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 - -									-20 -
- 210 - - - - - 215					SP		SAND: 2.5Y 6/4 light yellowish brown, coarse grained, little medium sand, trace fine sand, little fine subangular to subrounded gravel, loose, wet	Siyo ope	-25 - - -30 -
- - 220 - - -							GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, coarse grained sand, some fine subrounded to angular gravel, loose, wet		-35 -
- 225 - - - - - 230					SM		SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, little silt, little fine		-40 - - - - -45 -
- - - 235 - -							subrounded gravel, loose, wet		-50 -
- 240 -					ML		SILTY SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace coarse sand, trace medium sand, little fine angular to subrounded gravel, wet		-55 -
- - 245 - - -									-60 <del>-</del>
- 250 - -					SWSM	l:::  :	SAND: 2.5Y 6/4 light yellowish brown, coarse grained sand, some fine angular to subrounded gravel, little medium sand, little fine sand, little silt, loose, wet		-65 <del>-</del>
- 255 -									-70 -



Northing: M1: 4619551.60, M2: 4619551.65, S: 4619551.70    Second   Second	Pro	oject Name	e: J-2 RANGE				1/1 // -	Location:		
SW SAND: 2.5Y 6/8 cive yellow coarse grained, little medium sand, trace fine sand, some fine angular to subrounded gravel, trace sitt, wet  SM SAND: 2.5Y 6/4 light cive brown, medium grained, little gravel, trace sangular to subrounded gravel, little coarse angular to subrounded gravel, little sitt, wet  SM SAND: 2.5Y 6/4 light cive brown, medium grained, little subrounded gravel, little sitt, wet  SM SAND: 2.5Y 6/5 cibe yellow, medium grained, little sources angular to subrounded gravel, little sitt, wet  SAND: 2.5Y 6/5 cibe yellow, medium grained, little sources angular to subrounded gravel, little sitt, wet in subrounded gravel, little sittle sitt	$\vdash$				5, S: 461	19551.	70		S: 374510.27	
SW SAND 2.5Y 6/6 alive yellow, rocarse grained, little medium sand, trace fine sand, some fine angular to subrounded gravel, trace silt, wet  SM SAND 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  SAND 2.5Y 6/6 alive yellow, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, little silt, wet  SAND 2.5Y 6/6 alive yellow, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, little silt, wet  SAND 2.5Y 6/6 alive yellow, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  SAND 2.5Y 6/6 alive yellow, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  SAND 2.5Y 6/6 alive yellow, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  -285  SAND 2.5Y 6/6 alive yellow, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  -306  SAND 2.5Y 6/6 alive pictor, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  -307  -308  SAND 2.5Y 6/6 alive pictor, medium grained, little coarse sand, little fine subangular to subrounded gravel, little silt, wet  -309  -300  SAND 2.5Y 6/6 alive pictor, coarse grained sand, little fine grained sand, trace coarse sand, medium dense, wet				Gamı	ma Log CPS luctivity	JSCS Class		Lithologic Description	Well Construction	Elevation (ft msl)
SAND: 2.5Y 5/4 light clive brown, coarse grained sand.  SAND: 2.5Y 5/4 light clive brown, coarse grained, some fine  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine	- - -					sw		medium sand, trace fine sand, some fine angular to subrounded gravel, little coarse angualr to subrounded	In-situ Soil	- - - -
SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, little fine sund. little fine subangular to subrounded gravel, little silt, wet  -95  -95  -100  -105  -105  -106  -107  -108  -108  -109  -109  -109  -109  -109  -109  -109  -100  -100  -100  -105  -105  -105  -106  -107  -108  -108  -109  -109  -109  -109  -109  -109  -109  -109  -109  -109  -109  -109  -109  -100  -100  -100  -100  -100  -100  -100  -100  -100  -100  -100  -100  -100  -100  -105  -105  -105  -106  -107  -108  -108  -109  -109  -109  -109  -109  -109  -109  -109  -100	- - -					SM		coarse sand, little fine sand, little fine subangular to subrounded gravel, trace coarse angular to subrounded		- - - -
SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, loose, wet  -105	-							coarse sand, little fine sand, little fine subangular to		- - -
SANDY SILT: 5Y 5/3 olive, silt, little fine grained sand, trace coarse sand, medium dense, wet  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine  -120	-					ML				- - - -
angular to subrounded gravel, little medium sand, loose, \	- - -							trace coarse sand, medium dense, wet  SAND: 2.5Y 5/4 olive brown, coarse grained, some fine	Bentonite Seal	- - - -115 - - -

Proje	ect Name	: J-2	RANGE					Location:		
North	hing: M1		9551.60, M	2: 4619	551.65, S: 46°	19551.	70	Easting: M1: 374510.27, M2: 374510.27,	S: 374510.27	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - - - - - 315						ML		SANDY SILT: 5Y 5/3 olive, silt, some fine grained sand, trace medium sand, trace coarse sand, wet		-125 <del>-</del> -125 - -
- - -						SM		SAND: 5Y 5/3 olive, medium grained, some silt, little coarse sand, little fine sand, trace fine angular to subrounded gravel, loose, wet  SILT: 5Y 5/4 olive, silt, some clay, little fine sand, soft,		-130 - - -
- 320 - - -						GC		wet  GRAVEL: 5Y 4/3 olive, coarse angular to subrounded gravel, some fine angular to subrounded gravel, little clay, little coarse sand, wet, gravel composed of multiple lithologies		-135 - - - -
- 325 - - -								GRAVEL: 5Y 4/2 olive gray, coarse angular to subrounded gravel, some fine angular to subrounded gravel, little coarse sand, wet, gravel composed of multiple lithologies	In-situ Soil	-140 - - - -
- 330 - - -								GRAVEL: 5Y 4/2 olive gray, coarse angular to subrounded gravel, some fine angular to subrounded gravel, little coarse sand, wet, gravel composed of multibple lithologies		-145 - - - -
- 335 - - -						BR		BEDROCK: Coarse and fine gravel sized fragments of freshly fractured black and pink crystalline rock		-150 - - - -
- 340 - - -								Notes: 1. Well Depths MW-318M1: 316.32 ft (BGS) MW-318M2: 216.33 ft (BGS)		-155 - - - -
- 345 - - -								MW-318S: 131.55 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-318M1: 10.02 ft MW-318M2: 10.02 ft MW-318S: 10.02 ft 4. Screen Intervals		-160 - - - -
- 350 - -								4. Screen intervals MW-318M1: 305.79 - 315.81 ft (BGS) MW-318M2: 205.80 - 215.82 ft (BGS) MW-318S: 121.32 - 131.34 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 185.99 ft (MSL)		-165 – -

								, 112						
			RANGE						Location:					
North	ning: M	1: 46	17649.47,	M2: 4	617649	).52, \$	S: 461	7649.	57 Easting: M1: 374603.07,	M2: 374603.0	7, 5	S: 37	4603	3.07
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL	): M1: 160.69, M2: 160.69,	S: 160.69 @	Top	PV	2	
Drillir	ng Equipi	ment:	Dual Air R	otary		W	ell Deptl	h ft (BG	SS): M1: 210.80, M2: 175.72	2, S: 102.90				
Drillir	ng Metho	d: Ai	r-Rotary			В⊦	H Depth	/Diam: ;	324.00 ft (BGS), 8.00 in.	First Water ft (B	GS)	: 100	)	
Sam	oling Met	hod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date: (	02/24/04 - 03/30/04	Well Diameter (	(in.):	2.5	0	
Cons	t. Materia	als S	SCH 80 P	VC		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	вто	C): 8	9.55	;
Logg	ed by: G	. Pier	ce Re	eviewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 03	/30/0	)6	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CI 20 2 Condu	ma Log PS 15 70 1ctivity 6 10	USCS Class		Lithologic Description and Associated Lithographic			Well Instruc Diagra	tion	Elevation (ft msl)
-												M1 M2	2 S	
-0 - - - -5 -							SP		SAND: 2.5Y 4/3 olive		•			160 -
- - 10 -									SAND: 2.5Y 5/4 light olive  GRAVELLY SAND: 2.5Y		_			150 -
- - - 15									SAND: 2.5Y 5/3 light olive SAND: 2.5Y 5/4 light olive		-			145 -
- - - 20								1123412			-			-
-							SP		SANDY GRAVEL: 2.5Y  SAND: 2.5Y 5/4 light olive		-			140 -
- - 25 -											#1 WG			135 -
- 30							GP SP		SANDY GRAVEL: 2.5Y SAND: 2.5Y 5/4 light olive		_			130 -
- - - - 35														- - - 125 –



		-					101 00 -				$\overline{}$
-			RANGE					Location:			
Nor	thing: M		7649.47,	M2: 46	617649.52, S	: 4617	7649.57	Easting: M1: 374603.07, M2: 37460	3.07	7, S: 37460	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	(	Well Construction Diagram	Elevation (ft msl)
- 40 - 40 45 50 55 60 65 70 75 75								SAND: 2.5Y 5/3 light olive  SAND: 2.5Y 6/4 light  SAND: 2.5Y 5/6 light olive		Ineliu Soil	120



Droine	ot Nom-						141 44 -	Location:			
			RANGE	N40: 40	47040 50 0	. 404	70.40.5		200.07	0. 07400	0.07
Northin	ing. Mi		049.47,	M2: 46	17649.52, S	: 4617	∕649.5 ⊺	7 Easting: M1: 374603.07, M2: 3746	003.07	, S: 37460	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well Construction Diagram	Elevation (ft msl)
- 85 85 90 95 105 110 115 120 125								SAND: 2.5Y 6/6 olive  SAND: 2.5Y 5/4 light olive	ato Wg Bentonite Seal		75

Proje	ect Name	e: J-2	RANGE			, ID.		Location:		
Nort	hing: M		7649.47,	M2: 46	317649.52, S	S: 4617	7649.5	57 Easting: M1: 374603.07, M2: 37460	3.07, S: 374603	3.07
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	) SOSI		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 130 -								SAND: 2.5Y 5/3 light olive	n Soul	30 -
- - 135 -								SAND: 2.5Y 5/4 light olive	la-fil	25 –
- - 140 -								<b>J</b>		- 20 – -
- - 145 - -										- 15 – -
- - 150 - -								SAND: 2.5Y 5/3 light olive		10 -
- - 155 - -								SAND: 2.5Y 6/3 light		5- - -
- - 160 - -								SAND: 2.5Y 6/4 light	Bentonite Sea	- 0- - -
- 165 - -								SAND: 2.5Y 5/4 light olive	Bw one	-5 <del>-</del> -5 -
- 170 - -								SAND: 2.5Y 5/3 light olive	6w 00s	-10 - - - -

							IVI VV -			
Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M		7649.47,	M2: 46	17649.52, S	: 4617	649.57	Easting: M1: 374603.07, M2: 374603.0	7, S: 37460	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 -										-15 <b>-</b>
- 180 - 1							_	SAND: 2.5Y 4/3 olive		-20 <del>-</del>
- - 185 - -									In-situ Soil	-25 -
- - 190 - -							_	SAND: 2.5Y 5/4 light olive		-30 -
- 195 -									Bentonite Seal	-35 <del>-</del>
- 200							_	SAND: 2.5Y 4/4 olive		-40 <del>-</del>
- 205 -									BM 00#	-45 - - -
- 210 -							_	SAND: 2.5Y 5/4 light olive		-50 <del>-</del>
- 215 - - -										-55 - - - -

Proje	ect Name	≕ J-2 R	ANGE					Location:		
Nort	hing: M		49.47,	M2: 46	317649.52, S	: 4617	7649.57	Easting: M1: 374603.07, M2: 37460	3.07, S: 37460	3.07
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description nd Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 -							s	AND: 2.5Y 4/4 olive		-60 <del>-</del>
- - 225 -										-65 -
- 230 - -							s	AND: 2.5Y 5/4 light olive		-70 - -
- 235 -										-75 - -
- 240 - -										-80 - - -
- 245										-85 - -
- 250										-90 <b>-</b>
- 255 - - -										-95 <b>-</b>
- 260 - - - - 265										-100 -

Proje	ect Name	e: J-2 RANGE				1/1 // -	Location:		
-				517649.52, S	: 4617	7649.57	Easting: M1: 374603.07, M2: 3746	603.07, S: 37460	3.07
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	J/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	ר (ft msl) ר
-								Ineliu Soil	-105 - - - - -
- 270 - - - - 275						S	SAND: 2.5Y 6/4 light		-110 - - - - -
- 280									-115 - - - - -
- - - - 285						S	SAND: 10YR 5/6		-120 - - - -
- 290									-125 - - - -
- - - - 295						S	SAND: 10YR 5/4 yellowish		-130 <del>-</del> - - -
- 300									-135 - - - -
- - -									-140 - - - -
- 305 - -									-145 - - - -
- 310 -									-150 -

Proje	ect Name	e: J-2	RANGE					Location:		
				M2: 46	617649.52, S	S: 4617	7649.57	Easting: M1: 374603.07, M2: 374603.0	07, S: 37460	3.07
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS C	a	Lithologic Description nd Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 315 - 315 320						√BR \		PRANITE BEDROCK		-155 - 
- 325										-165 –
- - - 330 - -							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Notes:  . Well Depths  . Well Depths  . W319M1: 210.80 ft (BGS)  . W319M2: 175.72 ft (BGS)  . W319S: 102.90 ft (BGS)  . SCH 80 PVC  Screens  . Screen lengths  . W319M1: 10.00 ft  . W319M2: 10.00 ft  . W319S: 10.02 ft  . Screen Intervals		-170 — - -170 —
- 335 -							N N	MW-319M1: 200.25 - 210.25 ft (BGS) MW-319M2: 165.17 - 175.17 ft (BGS) MW-319S: 92.68 - 102.70 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 160.62 ft (MSL)	-	- -175 –

								,	,, 021					
Proje	ct Name	: J-2	RANGE						Location:					
North	ning: M	1: 46	17936.94,	M2: 4	617936	6.99			Easting: M1: 374264.08,	M2: 374264.0	8			
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL)	: M1: 173.12, M2: 173.12	@ Top PVC				
Drillin	ng Equip	ment: [	Dual Air R	otary		W	ell Depti	n ft (BG	S): M1: 185.34, M2: 166.47	7				
Drillir	ng Metho	d: Aiı	r-Rotary			Bŀ	H Depth/	Diam: 3	12.00 ft (BGS), 8.00 in.	First Water ft (E	3GS	): 1	16.5	
Sam	oling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date: 0	3/10/04 - 04/06/04	Well Diameter (	(in.)	: 2	.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	ımber: 3	35AY5301	Static Water ft (	ВТ	OC):	101.	79
Logg	ed by: G	i. Joy	ce Re	viewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 03	3/29	/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	C 20 4 Condu	na Log PS 45 70 Ictivity 6 10	USCS Class		Lithologic Description and Associated Lithographic			W∉ onstr Diag	uction	Elevation (ft msl)
												M1	M2	- 175 - -
-0 - - - -5 -							SP		SAND: 2.5Y 4/3 olive brown, medium coarse sand, trace fine sand, trace to subanular to rounded gravel, trace co gravel, trace silt, loose, moist	little fine arse rounded	•	000000000000000000000000000000000000000		- - 170 – - -
- - - 10 -								_	SAND: 2.5Y 4/4 olive brown, coarse medium sand, trace fine sand, little fir rounded grave, trace to little coarse s rounded gravel, trace silt, loose, mois SAND: 2.5Y 5/3 light olive brown, me fine sand, trace to little coarse sand, t	e subangular to ubrounded to t edium grained, little				165 - - -
- - - 15 -									slightly moist					- 160 - - -
- - - 20								-	SAND: 2.5Y 4/3 olive brown, coarse medium sand, trace to little sand, trace angular to rounded gravel, trace silt, l	e to little fine	_			155 - - - -
- - - 25														- 150 - - -
- - - 30								-	SAND: 2.5Y 5/4 light olive brown, me trace to little coarse sand, trace fine s fine angular to rounded gravel, trace or rounded gravel, trace sit, loose, dry	and, trace to little	#1 WG		300000000000000000000000000000000000000	- 145 - -
-									SAND: 2.5Y 5/4 light olive brown, me coarse sand, trace fine sand, trace fir rounded gravel, trace silt, loose, dry				300000000000000000000000000000000000000	1

Proje	ect Name	∷ J-2 l	RANGE					Location:		
Nort	hing: M	1: 4617	936.94,	M2: 46	17936.99			Easting: M1: 374264.08, M2: 374264.08		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description Cons	/ell truction gram	Elevation (ft msl)
- - 35									33000000000000000000000000000000000000	140 -
- - - 40 -							_	SAND: 2.5Y 5/3 light olive brown, coarse grained, little medium sand, trace to little fine sand, trace to little fine subangular to rounded gravel, trace silt, loose, dry	200000000000000000000000000000000000000	135 -
- - 45 -									300000000000000000000000000000000000000	130 -
- - - 50							_	SAND: 2.5Y 6/3 light yellowish brown, medium grained, little fine sand, trace coarse sand, trace silt, loose, dry	00000000000000000000000000000000000000	125 -
- - 55 -									00000000000000000000000000000000000000	120 -
- - - 60										115 -
- - - 65										110 -
- 70								SAND: 2.5Y 6/4 light yellowish brown, fine grained,		105 -
- 75								little medium sand, trace coarse sand, trace silt, loose, dry		100 -

Proie	ect Name	e: J-2 R	ANGE				171 77	Location:	
				M2: 46	17936.99			Easting: M1: 374264.08, M2: 374264.08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	O/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- 80 - 85 - 90 - 95 - 100 - 105								SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, trace coarse sand, trace silt, loose, dry  SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, trace coarse sand, trace silt, loose, slightly moist  SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, trace coarse sand, trace silt, loose, slightly moist	95
- - - 110 -							_	SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular to rounded gravel, trace silt, loose, wet	65 -
- - 115 -							_	SAND: 2.5Y 4/2 dark grayish brown, medium grained,	-

Proje	ect Name	∷ J-2 l	RANGE					Location:		
Nort	hing: M		936.94,	M2: 46	17936.99			Easting: M1: 374264.08, M2: 374264.	08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	a	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
							ti	race fine sand, trace coarse sand, trace silt, loose, wet		55 -
- 120 - - - - - 125 -								SAND: 2.5Y 3/3 dark olive brown, medium grained, ittle course sand, trace fine sand, trace silt, loose, wet		50 -
- 130 - - - - - 135								SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse snd, trace fine sand, trace silt, loose, wet		40 -
- - 140 -							0000000 n	SAND: 2.5Y 5/4 light olive brown, coarse grained, little nedium sand, trace fine sand, little fine angular to ounded gravel, trace silt, loose, wet		35 -
- - 145 - -									ie Seal	25 -
- 150 - - - - - 155							:::::::::::: c	SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse sand, trace fine sand, trace fine subangular to ounded gravel, trace silt, loose, wet	Benton	20 -
-										15 <b>-</b>



				LOO	ID.	IVI VV -	<b></b>		
Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M	1: 4617936.94,	M2: 46	17936.99			Easting: M1: 374264.08, M2: 374264.0	08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 160 - - - - - 165						2333333	SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse sand, trace fine sand, trace to little fine subangular to rounded gravel, trace silt, loose, wet	Sw ope	10 -
- - - - 170 -					GW		GRAVEL: fine angular rounded, trace coarse subangular to rounded gravel, trace to little coarse sand, trace medium sand, trace fine sand, trace silt, loose, wet	Bentonite Seal	5-
- 175 -							_		-
- - 180					SP	_	SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, trace coarse sand, trace fine angular to rounded gravel, trace silt, loose, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, trace fine subrounded to rounded gravel, trace silt, loose, wet	B <sub>M</sub> 00#	-5 <del>-</del>
- - - 185							Tourided graver, trace siit, 1003e, wet		-10 - -
- - - 190						_	SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, trace coarse sand, trace fine subangular to		-15 - - -
- - - 195							rounded gravel, trace silt, loose, wet		-20 -
- - 200							SAND: 2.5Y 5/3 light olive brown, medium grained, little		-25 - -



Proj	ect Name	e: J-2 RANGE					Location:		
Nor	thing: M	1: 4617936.94,	M2: 46	17936.99			Easting: M1: 374264.08, M2: 374264.0	)8	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 205 -							fine sand, trace coarse sand, trace silt, loose, wet		-30 - -
- - 210							SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse sand, trace fine sand, trace fine angular to subrounded gravel, trace silt, loose, wet		-35 -
- - - 215						_	SAND: 2.5Y 4/3 olive brown, medium grained, little fine		-40 <del>-</del>
- 220						_	sand, trace coarse sand, trace silt, loose, wet  SAND: 2.5Y 5/3 light olive brown, medium grained, little		-45 <del>-</del>
- - - 225							SAND: 2.54 53 light olive brown, friedum gramed, little coarse sand, trace fine sand, trace fine angular to subrounded gravel, trace coarse angular to subrounded gravel, trace silt, loose, wet		-50 - -50 -
- 230							SAND: 2.5Y 5/3 light olive brown, fine grained, little medium sand, trace coarse sand, trace fine angular to		-55 - -
- - - 235							subrounded gravel, trace to little silt, loose, wet		-60 - -
- - - 240							SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, trace coarse sand, trace to little silt,		-65 <del>-</del>
[							medium sand, trace coarse sand, trace to little silt, loose, wet		1



Proie	ect Name	≕ J-2 RA	NGF					171 77	Location:	$\neg$
		1: 461793		/2· 46	17936	99			Easting: M1: 374264.08, M2: 374264.08	_
				712. 40	Gamm		lass		Well	(ft msl)
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery		PID/FID	CF Condu 2 6	PS activity	USCS Class		Lithologic Description Construction and Associated Lithographic Symbol Diagram	Elevation (ft msl)
- - 245										-70 -
- - - - 250									SAND: 2.5Y 5/3 light olive brown, fine grained, trace medium sand, trace coarse sand, trace silt, loose, wet	-75 — -
- - - 255 -										-80 <del>-</del> -
- - 260 -							SM		SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace medium sand, trace clay, loose, wet	-85 - - -
- - 265 - -										-90 - - - - -95 -
- - 270 - -									SILTY SAND: 2.5Y 4/4 olive brown, fine grained sand, trace medium sand, loose, wet	100 -
- - 275 - -										105 -
- 280 - - -									SILTY SAND: 2.5Y 5/3 light olive brown, fine grained sand, loose, wet	- - - 110 –



Proje	ect Name	: J-2	RANGE					Location:		
Nort	hing: M	1: 461	7936.94,	M2: 46	617936.99			Easting: M1: 374264.08, M2: 374264.0	)8	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 290 295								SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, trace to little silt, loose, wet		-115 —  -120 —
- - - 300 -						SP		SAND: 2.5Y 5/3 light olive brown, fine grained, little medium sand, trace coarse sand, trace fine angular to subangular gravel, trace silt, loose, wet	-	- -125 - - - -
- - 305						GP		GRAVEL: 2.5Y 4/1 dark gray, coarse angular to subrounded gravel, trace to little fine angular to subrounded gravel, trace coarse sand, trace medium sand, trace fine sand, trace silt, loose, wet	-	-130 - - - -
- - - 310						SP		SAND: 2.5Y 4/2 dark grayish brown, medium grained, trace to little coarse sand, trace fine angular to subangular gravel, silt, loose, wet  SAND: 2.5Y 5/2 grayish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular to subrounded gravel, trace silt, loose, wet	-	- -135 – - -
- - - 315							\(\frac{1}{2}\)	GRANITE BEDROCK  Notes:	-	- -140 – -
- 320								Notes:  1. Well Depths  MW-321M1: 185.34 ft (BGS)  MW-321M2: 166.47 ft (BGS)  2. SCH 80 PVC  Screens  3. Screen lengths  MW-321M1: 10.00 ft  MW-321M2: 10.00 ft  4. Screen Intervals  MW-321M2: 155.67 - 165.67 ft (BGS)  MW-321M2: 155.67 - 165.67 ft (BGS)  5. Slot Size 0.010 in.  6. Surface Elevation: 173.38 ft (MSL)		-145 - 

_			RANGE						Location:			
North	ning: M	1: 461	8774.79, \$	S: 46187	74.84				Easting: M1: 374404.12, S:	374404.12		
Drillir	ng Contra	actor:	D. L. Mah	er Co.		E	levation f	t (MSL)	: M1: 182.18, S: 182.18 @	Top PVC		
Drillir	ng Equipi	ment:	Dual Air R	otary		W	Vell Depth	n ft (BG	s): M1: 256.32, S: 129.03			
Drillir	ng Metho	d: Ai	r-Rotary			В	H Depth/	Diam: 3	336.16 ft (BGS), 8.00 in.	First Water ft (B	GS): 100	
Sam	oling Met	hod: S	Stainless S	Steel Ba	ailer	S	tart/End I	Date: 0	3/11/04 - 04/07/04	Well Diameter (	in.): 2.50	
Cons	t. Materia	als S	SCH 80 P\	/C		Р	roject Nu	mber: (	35AY5301	Static Water ft (	BTOC): 109.2	20
Logg	ed by: L.	Bae	rga Re	viewed b	y: Larr	y Par	nnell, P	G	Completion: Flushmount	Date Measured:	09/27/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CI 20 2 Condu	ma Log PS 15 70 Ictivity 6 1	SCS Class		Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
-											M1 S	185 -
-0 - - - -5							SPSM		SAND: 2.5Y 5/4 light olive brown, me coarse sand, little fine sand, little fine s gravel, little silt, loose, dry	dium grained, little subrounded		180 -
- - - -							SP		SAND: 2.5Y 6/4 light yellowish brown little coarse sand, trace fine sand, trace		33030303030303030303030303030303030303	175 -
- - - -									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, trace fine sand, trace		30000000000000000000000000000000000000	170 -
- - - -											30000000000000000000000000000000000000	165 -
- - - - 25							SPSM		SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, little		00000000000000000000000000000000000000	160 -
- - - - - 30									CAND: 2 EV C/4 E 1/2 III - 1 L 1	diam and a		155 -
- - - - 35 -									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, little		DM 14	150 -



Dro:	oot Now	e: J-2 RANGE	-		, ID.	1/1 //	Location:		
-				0774.04					
Non	und: M	1: 4618774.79	, S: 461	8774.84 	1	1	Easting: M1: 374404.12, S: 374404.12	2	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	S		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 40									145 -
- 40 - - - 45					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine subangular gravel, trace fine sand, trace silt, loose, dry		140 -
- - - 50						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained,	- 1000000000000000000000000000000000000	135 -
- - - - 55							little fine sand, trace coarse sand, trace silt, loose, dry	-	130 -
- - - - 60						_	CAND: 0 EV C/4 light well-wish have a realism region.	- 1000	125 -
- - -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace silt, loose, dry	30000000000000000000000000000000000000	120 -
-									115 -
- 70 - - -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace silt, loose, dry		110 -
- 75 - -									105 -
- 80 -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, little fine sand, trace silt, loose, dry		-

							1 <b>V1 VV</b> -			
Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M		3774.79,	S: 461	8774.84			Easting: M1: 374404.12, S: 374404.1	2	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 85 90 95 100 105						SPSM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, little medium sand, little silt, loose, dry  SAND: 2.5Y 6/4 light yellowish brown, fine grained, ittle coarse sand, little medium sand, little silt, loose, damp	Inelity Soil	100 - - - - 95 - - - - - - - - - - - - - - - - - - -
- - - - 110 - - - - - 115						SP		SAND: 2.5Y 6/4 light yellowish brown, fine grained, ittle coarse sand, little medium sand, trace silt, loose, damp	Bentonite Seal	75 - 75 - 70 - - - - - - - -
- - 120 - - - - - 125							-	SAND: 2.5Y 6/6 olive yellow, medium grained, some coarse sand, trace fine sand, trace silt, loose, damp	BM 00#	60 -
-										55 <del>-</del>



Proje	ect Name	e: J-2	RANGE					Location:		
-			3774.79,	S: 461	8774.84			Easting: M1: 374404.12, S: 374404.12	2	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS (		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 130 - 135							100000000000000000000000000000000000000	SAND: 2.5Y 6/6 olive yellow, medium grained, some fine subrounded to subangular gravel, little coarse sand, trace fine sand, trace silt, loose, wet		- - - 50 - - - - 45 -
- - 140 - - - - - 145 -						SM	$  \cdot \cdot \cdot  $ :	SAND: 2.5Y 5/4 light olive brown, medium grained, some silt, little fine sand, trace coarse sand, medium dense, wet		40 -
- - 150 - - - - - 155 -								SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, little medium sand, medium dense, wet		30 -
- - 160 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, some silt, little medium sand, trace coarse sand, medium dense, wet		20 -
- 165 - - - - - 170								SAND: 2.5Y 6/4 light yellowish brown, medium grained,		- - 15 - - -
-							: : :	little coarse sand, little fine sand, little silt, medium dense, wet		10 –

Proje	ect Name	e: J-2	RANGE					Location:		
Norti	hing: M	1: 4618	8774.79,	S: 461	8774.84			Easting: M1: 374404.12, S: 374404.12	2	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 - - -										5-
- 180 - - - - - 185						SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, little fine sand, trace silt, medium dense, wet	In-altu Soil	0-
- 190 						SM		SAND: 2.5Y 5/4 light olive brown, medium grained, some silt, little coarse sand, little fine sand, little fina angular to subrounded multi-colored gravel, medium dense, wet		-10 - -
- 200 							$  \cdot \cdot \cdot  $	SAND: 2.5Y 5/4 light olive brown, medium grained, some silt, little fine sand, trace coarse sand, medium dense, wet		-15 - -15 - - -20 -
- 210								SAND: 10YR 5/6 yellowish brown, medium grained, little coarse sand, trace fine sand, little fine angular to subrounded multi-colored gravel, little silt, medium dense, loose, wet		-25 -
- 215 - - -										-35 -



Proje	act Name	: J-2 RANG	<u> </u>	LOC		IVI VV	Location:		$\neg$
		1: 4618774.7		8774 84			Easting: M1: 374404.12, S: 374404.12	2	
			9, 0.40	0774.04				_	(Is
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 - - - - 225							SAND: 10YR 6/8 brownish yellow, medium grained, ittle coarse sand, little fine sand, little silt, loose, wet		-40 -
- 230 235							SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, medium dense, wet		-45 - - -50 -
- 240 - 245					SP		SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, little fine sand, little fine angular to subrounded gravel, trace coarse angular to subrounded gravel, dense, wet	Bentonite Seal	-55 - - -60 -
- - - - 250					SM		SAND: 10YR 5/8 yellowish brown, medium grained, some fine sand, trace coarse sand, little silt, loose, wet		-65 - - - - -70 -
- 255 260									-75 - 80 -
- - - 265									-



Droi	oot Nome	. I 2 DANCE				Location:	
-		e: J-2 RANGE	C: 464	0774.04			
INOI		1: 4618774.79,	5: 461	8774.84		Easting: M1: 374404.12, S: 374404.12	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - - - 270							- -85 - -
- - - - 275					SPSM	SAND: 10YR 5/8 yellowish brown, medium grained, little coarse sand, little fine sand, little fine gravel, trace to little silt, medium dense, wet	-90 - -90 -
- - - 280					SM	SAND: 10YR 5/8 yellowish brown, medium grained,	-95 <del>-</del>
- - - 285 -							-100 - - - - -
- - 290 -						SAND: 2.5Y 6/6 olive yellow, medium grained, some fine sand, trace coarse sand, little silt, loose, wet	-105 - - - - -110 -
- - 295 - -						In-stru Sol	- - -115 –
- - 300 - - -						SAND: 2.5Y 6/6 olive yellow, fine grained sand, little medium sand, little silt, loose, wet	- - -120 - -
- 305 - -							-125 - -
310						SAND: 2.5Y 6/4 light yellowish brown, fine grained,	-

Proje	ect Name	: J-2 l	RANGE						Location:		
Nort	hing: M1		774.79,	S: 461	8774.8	4			Easting: M1: 374404.12, S: 374404.12	2	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Condu	PS	USCS Class	;	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 315 - -									some silt, medium dense, wet		-130 - -130 - - - -135 -
- 320 - - - 325							ML		SANDY SILT: 2.5Y 6/4 light yellowish brown, silt, fine grained sand, medium dense, wet		-140 -140 - - -145
- 330 - - - - - - 335									SILT: 5Y 6/2 light olive gray, little fine sand, little fine angular black gravel (freshly fractured) at very end of run		- -150 - - - -
- - - 340 - -									Notes: 1. Well Depths MW-322M1: 256.32 ft (BGS) MW-322S: 129.03 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-322M1: 10.00 ft MW-322S: 10.00 ft		-155 - 
- 345 - - -									MW-3223. 1.00 ft 4. Screen Intervals MW-322M1: 245.77 - 255.77 ft (BGS) MW-322S: 118.53 - 128.53 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 182.46 ft (MSL)		- -165 – -

									1					
			RANGE						Location:					
North	ning: M	1: 461	8275.68, 1	M2: 4618	3275.73				Easting: M1: 374840.08, M	2: 374840.08				
Drillir	ng Contra	actor:	D. L. Mah	er Co.		E	levation f	t (MSL	L): M1: 174.05, M2: 174.05 (	@ Top PVC				
Drillir	ng Equipi	ment: [	Dual Air R	otary		W	ell Depth	n ft (BC	GS): M1: 245.55, M2: 215.44					
Drillir	ng Metho	d: Aiı	r-Rotary			В	H Depth/	Diam:	349.12 ft (BGS), 8.00 in.	First Water ft (B	3GS	): 11	0	
Sam	oling Met	hod: S	Stainless	Steel Ba	ailer	St	art/End [	Date:	03/24/04 - 04/15/04	Well Diameter (	(in.):	2.	50	
Cons	t. Materia	als S	SCH 80 P	/C		P	roject Nu	mber:	35AY5301	Static Water ft (	ВТС	DC): ·	103.	18
Logg	ed by: L.	Baeı	rga Re	eviewed b	y: Larr	y Par	nell, P	G	Completion: Flushmount	Date Measured	: 03	3/30/	06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CI 20 2 Condu	na Log PS 15 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic	Symbol		Wel onstru Diagra	ction	Elevation (ft msl)
- - -0												M1 N	М2	- - 175 -
-							SP		SAND: 2.5Y 5/4 light olive brown, me coarse sand, trace fine sand, some fir subrounded gravel, trace silt, loose, d	ne angular to	1			-
-5 - -							SPSM		SAND: 2.5Y 5/4 light olive brown, me coarse sand, trace fine sand, little ang subrounded gravel, little silt, loose, dry	jular to			333333333333333333333333333333333333333	170 - - - - 165 -
- 10 - - - - 15 -							SP	1	SAND: 2.5Y 6/4 light yellowish brown little coarse sand, trace fine sand, little subrounded gravel, loose, dry				200000000000000000000000000000000000000	- - - 160 – - -
- 20 -									SAND: 2.5Y 6/4 light yellowish brown some coarse sand, trace fine sand, litt subrounded gravel, loose, dry		#1 WG			155 - - - -
- - 25 - -														150 - - -
- - 30 - -									SAND: 2.5Y 6/4 light yellowish brown some coarse sand, little fine sand, trad		-			145 - - - -
- - 35 - - -													300000000000000000000000000000000000000	140 - - -

AND: 2.5Y 7/4 pale yellow, medium grained, trace to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sund, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sund, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sund, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sund, little fine sand, loose, dry			Location:				2 RANGE	e: J-2	ect Name	Proje
SAND: 2.5Y 1/4 pale yellow, medium grained, trace to title cares sand, little fine sand, trace siti, loose, dry  SAND: 2.5Y 1/4 pale yellow, medium grained, trace to title cares sand trace from sand trace from subanquiar to subrounded gravel, loose, dry  SAND: 2.5Y 1/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subanquiar to subrounded gravel, loose, dry  SAND: 2.5Y 1/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subanquiar to subrounded gravel, loose, dry  SAND: 2.5Y 1/4 pale yellow, medium grained, trace coarse sand, little fine sand, toose, dry  SAND: 2.5Y 1/4 pale yellow, medium grained, trace coarse sand, little fine sand, toose, dry		 08	Easting: M1: 374840.08, M2: 374840.0		318275.73	M2: 46	8275.68,	1: 4618	thing: M	Nort
SAND: 2.5Y 7/4 pale yellow, medium grained, trace to little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace fine angular to	Elevation (ft msl)	Well Construction	Lithologic Description	USCS Class	Gamma Log CPS Conductivity					
SAND: 2.5Y 7/4 pale yellow, medium grained, trace to little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry	- 135 - -		SAND: 2.5Y 6/4 light yellowish brown, medium grained,							- - 40 -
SAND: 2.5Y 7/4 pale yellow, medium grained, trace oarse sand, little fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry	130 -		some coarse sand, little fine sand, trace silt, loose, dry							- - - 45 - -
SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, loose, dry	120 -		ittle coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular							- - -
SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace fine angular to	115 -		coarse sand, little fine sand, trace fine subangular to							- - - 60 - -
SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace fine angular to	110 -									- - 65 - -
SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace fine angular to	105 -	-	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry							- 70 - - -
SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace fine angular to	95 -									- 75 - - -
Subangular graver, rouse, dry	90 -	-	SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace fine angular to subangular gravel, loose, dry							-

Proj	ect Name	: J-2 RANGE					Location:		
Nor	thing: M	1: 4618275.68,	M2: 461	8275.73			Easting: M1: 374840.08, M2: 374840.	08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 90 - - - -							SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, loose, dry		85 - - - - - 80 -
- 100 100							SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, little fine subangular to subrounded gravel, loose, dry	-	75 -
- 105 - - - - - 110 -						"-	SAND: 2.5Y 6/4 light yellowish brown, medium grained, ittle coarse sand, little fine sand, trace silt, loose, damp	-	65 -
- - 115 - -								Insitu Soil	60 -
- 120 - - - - 125					SW	1.1.1.1.1	SAND: 2.5Y 6/4 light yellowish brown, medium grained, ittle coarse sand, little fine sand, little fine subangular to subrounded gravel, trace silt, loose, damp to wet	16-17	55 - - - - 50 -
- 130					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, little coarse sand, little medium sand, little silt, loose, wet		45 -

Proje	ect Name	: J-2 RANGE					Location:		
Nort	hing: M	1: 4618275.68,	M2: 46	18275.73			Easting: M1: 374840.08, M2: 374840	.08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 135 -									40 -
- - 140 -					SPSM	r	SAND: 2.5Y 5/4 light olive brown, coarse sand, little medium sand, little fine sand, little fine angular to subrounded gravel, trace to little silt, loose, wet		35 -
- - - 145 -									30 -
- 150 -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, medium dense, wet		25 -
- - 155 - -									20 -
- - 160 - -						: : :   t	SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, little silt, medium dense, wet		15 -
- - 165 - -									10 -
- 170 - 170						· ·   t	SAND: 2.5Y 5/4 light olive brown, medium grained, trace to little coarse sand, little fine sand, little silt, medium dense, wet		5-
- - 175 - -									0-
- - 180					SW		SAND: 2.5Y 5/4 light olive brown, medium grained, little		-5 <del>-</del>



Proje	ect Name	e: J-2	RANGE				1/1 // -	Location:		
-				M2: 46	318275.73			Easting: M1: 374840.08, M2: 374840	.08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	J/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 185 -								coarse sand, trace fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, dense, wet		- -10 - -
- - 190 - - - - -								GRAVELLY SAND: 2.5Y 5/4 light olive brown, coarse grained sand, little medium sand, trace fine sand, some fine angular to subrounded gravel, little coarse angular to subrounded gravel, trace silt, dense, wet		-15 - - - - -20 -
- - - - 200								GRAVELLY SAND: 2.5Y 5/4 light olive brown, coarse grained sand, little medium sand, trace fine sand, some coarse angular to subrounded gravel, little coarse	Bentonite Sept	-25 -
- - 205 - -								angular to subrounded gravel, trace silt, dense, wet	0.000000000000000000000000000000000000	-30 - -30 - -
- - 210 - - -								GRAVELLY SAND: 2.5Y 5/4 light olive brown, coarse grained sand, some medium sand, little coarse angular to subrounded gravel, little fine angular to subrounded gravel, dense, wet	BN 09	-35 - - - -40 -
- 215 - - - - - 220						CL				- - -45 –
- - - - 225						SM		CLAY: 5Y 4/1 dark gray, stiff, dry  SAND: 2.5Y 4/2 dark grayish brown, fine grained, trace coarse sand, little medium sand, some silt, dense, wet	In-stru Soil	-50 -
- -										1



Drain	oot Now	y. 10	DANCE		LOC			Location:		
			RANGE	N40: 40	240075 70				00	
Norti	ning: M		8275.68,	M2: 46	318275.73 			Easting: M1: 374840.08, M2: 374840.	U8 	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 230 - - -							- - -	SAND: 2.5Y 6/6 olive yellow, fine grained, some medium sand, trace coarse sand, trace coarse angular gravel, trace fine angular gravel, little silt, dense, wet	automin and a second	-55 - - - - -60 -
- 235 - - - - - 240								SAND: 2.5Y 6/6 olive yellow, medium grained, trace	Elw ope	-65 —
- - - 245 - - -								coarse sand, some fine sand, little silt, medium dense, wet		-70 - -70 -
- 250 - - - - 255						SP		SAND: 2.5Y 6/6 olive yellow, fine grained, trace coarse sand, little medium sand, trace fine angular gravel, loose, wet		-80 -
- - 260 - - -						SM		SAND: 2.5Y 5/6 light olive brown, fine grained, trace medium sand, some silt, loose, wet		-85 - - - - -90 -
- 265 - - -										-90 - - -95 –
- 270 - - - - - 275						ML		SILT: 2.5Y 5/6 light olive brown, silt, trace fine grained sand, little clay, medium stiff, wet	-	-100 –

Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M	1: 4618275.68,	M2: 46	18275.73			Easting: M1: 374840.08, M2: 374840.	08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 280 285 285					SM		SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, some silt, loose, wet		-105 - -105 - - -110 -
- - 290 - - -					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, loose, wet		-115 - - - - - -120 -
- 295 - - - - - 300					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, little silt, loose, wet	In-eitu Soil	-125 -
- - - 305 - -									-130 - - - -
- 310 - - - - - 315						- - -   (	SAND: 2.5Y 5/3 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, trace fine angular to subrounded gravel, medium dense, wet		-135 - - - -140 -
- - - 320 -					SC		SAND: 5Y 5/2 olive gray, fine grained, some clay, little silt, trace fine angular gravel, medium dense, wet		-145 - - - -

Proje	ect Name	: J-2	RANGE						Location:		
Nort	hing: M′		8275.68,	M2: 46	318275.	.73			Easting: M1: 374840.08, M2: 374840.	08	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Condu	PS	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 325 - -											-
- 330 -								V././.	SAND: 5Y 5/2 olive gray, fine grained, some clay, little silt, trace coarse angular to subrounded gravel, trace fine angular to subrounded gravel, medium dense, wet		-155 <del>-</del> - - -
- 335							GC	(1/1/1)	GRAVEL: 5Y 5/2 olive gray, fine angular to subrounded gravel, little coarse angular to subrounded gravel, little coarse sand, some clay, dense, wet		- -160 - - - -
- 340 											-165 - - - - -
- 345 							SW		GRAVELLY SAND: 5Y 5/1 gray, coarse grained sand, little coarse angular to subrouned gravel, some fine angular to subrounded gravel, ense, wet. Freshly fractured, angular, pink and black granitic rock fragments observed at end of drill run.		-170 - - - -
- 350 -									Notes:	- 11////	-175 - - - -
- - 355 - -									Notes. 1. Well Depths MW-324M1: 245.55 ft (BGS) MW-324M2: 215.44 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-324M1: 10.00 ft MW-324M2: 11.00 ft 4. Screen Intervals	-	- -180 - - - -
- 360 -									A. Worden intervals MW-324M1: 234.85 - 244.85 ft (BGS) MW-324M2: 203.74 - 214.74 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 174.08 ft (MSL)	-	-185 – - - -

			DANO						VV-321			
			RANGE		0075 11	N/2:	462027	'E 16	Location:	2: 274577 00 N	42. 274577 0	-
				, M2: 462	20275.11				Easting: M1: 374577.99, M			9
				aher Co.					): M1: 174.67, M2: 174.67,		2) TOP PVC	
				Rotary					(S): M1: 306.58, M2: 275.66	·		
			r-Rotary		,	_			338.06 ft (BGS), 8.00 in.	First Water ft (B		
				s Steel E	aller				04/08/04 - 05/05/04	Well Diameter (	-	
<u> </u>			SCH 80						35AY5301	Static Water ft (		09
Logg	ed by: L		rga	Reviewed	by: Larr	y Par	nnell, P ⊤	G	Completion: Flushmount	Date Measured	: 09/14/06 T	
Depth ft (BGS)	Blow Counts Blow Counts Per 6 Inches Sample Interval //Recovery Sample ID Sample ID 7 8 9 7 9 9 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10								Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)
-0											M1 M2 M3	175 -
- - - -						SPSM		SAND: 2.5Y 5/4 light olive brown, me coarse sand, little fine sand, little silt,			170 -	
- 10												165 -
- - - -							SP		SAND: 10YR 5/6 yellowish brown, m trace to little coarse sand, trace fine s loose, dry			160 -
-												-
- 20 - - -									SAND: 2.5Y 5/4 light olive brown, me coarse sand, little fine sand, little fine subrounded gravel, trace silt, loose, d	angular to		155 -
- 25 - - -												150 -
- 30 - -									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, tract to subrounded gravel, little fine angula gravel, trace silt, loose, dry	e coarse angular		145 -



Broid	oct Name	: J-2 RA	NCE			<u> </u>	171 77	Location:	
				. 46203	275.11, M3:	462027	5 16	Easting: M1: 374577.99, M2: 374577.99, M3: 374577.99	
			.00, 1012	. 40202	275.11, 1015.	402027	5.10	Easing. W1. 374377.99, W2. 374377.99, W3. 374377.98	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval	oample id	PID/FID	Gamma Lo CPS Conductivit 2 6	S		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - 35 -								# WG	140 -
- - 40 - -								SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, some fine sand, little fine angular to subrounded gravel, loose, dry	- 135 - - - -
- - 45 - - -									130 -
- 50 - - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, loose, dry	125 - - - -
- 55 - - -									120 -
- 60 - - -								SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, trace coarse angular gravel, trace fine angular to subrounded gravel, loose, dry	115 -
- 65 - -									110 -
- 70 - - - -								SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular to subrounded gravel, loose, dry	105 -

Proje	ect Name	: J-2 F	RANGE					Location:		
Nort	hing: M1		75.06, M	12: 4620	275.11, M3: 4	62027	5.16	Easting: M1: 374577.99, M2: 374577.99, M3	: 374577.9	9
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		o.og.o _ ooopo	Well onstruction Diagram	Elevation (ft msl)
- - - - - - - - - - - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular to subrounded gravel, loose, dry		95 -
- - - 90 - - - -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, loose, damp		
- - - - - - - - - - - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, little fine sand, trace fine angular to subrounded gravel, loose, damp		75 - - - - - - - - -
- - - - 110 -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, loose, damp		- - - 65 – -
- 115 -										60 -



Droi	oot Name	e: J-2 RANGE	,	LUC		141 44 -	Location:		
-		1: 4620275.06,		1275 11 M3· A	62027	5 16	Easting: M1: 374577.99, M2: 374577.99,	M3: 37/577 Q0	
	I III		VIZ. 4020			]	Lasting. Wit. 574577.55, Wiz. 574577.55,	1013. 374377.98	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 120 - -							GRAVELLY SAND: 2.5Y 5/4 light olive brown, coarse grained sand, little medium sand, trace coarse subangular to subrounded gravel, some fine subangular to subrounded gravel, dense, wet		- - 55 - - -
- 125 - -									50 -
- 130 -					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, some fine sand, little silt, loose, wet		45 - - -
- 135 -									40 -
- 140 -								In-situ Soil	35 -
- 145 - - -									30 -
- 150 -					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace to little fine angular to subrounded gravel, trace silt, loose, wet		25 -
- 155 - -									20 -



Proje	ect Name	: J-2 RANGE					Location:		
Nort	thing: M1	1: 4620275.06, M	2: 4620	275.11, M3: 4	62027	5.16	Easting: M1: 374577.99, M2: 374577.99,	M3: 374577.9	9
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 160 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine angular to subrounded gravel, trace silt, loose, wet		15 - - -
- - 165 -									10 -
- - 170 - -					SM		SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse sand, some fine sand, little silt, medium dense, wet		5- - -
- - 175 - - -									- 0- - -
- 180 - - -					SW	: : : : :	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, little silt, medium dense, wet		-5 <del>-</del>
- 185 - -									-10 -
- 190 - - -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, little silt, medium dense, wet		-15 <del>-</del>
- 195 - - -					SP		SAND: 2.5Y 6/3 light yellowish brown, coarse grained, some fine subangular to subrounded gravel, little medium sand, dense, wet		-20 -
- 200					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace		-25 -



Proje	ect Name	e: J-2	RANGE		LUC		101 00 -	Location:		
-				12: 4620	275.11, M3: 4	62027	5.16	Easting: M1: 374577.99, M2: 374577.99,	M3: 374577.9	9
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 205 210						ML		coarse sand, little medium sand, little silt, loose, wet  SANDY SILT: 2.5Y 5/4 light olive brown, trace coarse		-30 - -30 - -
- - - 215 -						SM		grained sand, trace medium sand, some fine sand, loose, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, little silt, loose, wet  SAND: 2.5Y 6/6 olive yellow, coarse grained, some fine	Bentonite Seal	-40 - -
- - 220 -						S.	_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, dense, wet		-45 <del>-</del>
- 225 -									DAN 008	-50 — - -
- 230						SM		SAND: 2.5Y 6/4 light yellowish brown, coarse grained, little medium sand, little fine sand, little fine angular to subrounded gravel, little silt, dense, wet		-55 <del>-</del>
- 235 - -						ML		SANDY SILT: 2.5Y 5/4 light olive brown, trace coarse grained sand, trace medium sand, some fine sand, little fine angular to subrounded gravel, dense, wet		-60 <del>-</del>
- 240 - -								SANDY SILT: 2.5Y 6/4 light yellowish brown, silt, trace coarse grained sand, trace medium sand, some fine sand, little fine angular to subrounded gravel, dense, wet		-65 - - -

Proje	ect Name	e: J-2 l	RANGE					Location:		
Nort	hing: M1	1: 46202	.75.06, M	12: 4620	275.11, M3: 4	62027	5.16	Easting: M1: 374577.99, M2: 374577.99,	M3: 374577.9	9
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 245 -									In-eltu Soil	-70 - -
- 250 -								SANDY SILT: 2.5Y 6/4 light yellowish brown, trace coarse sand, trace medium sand, some fine sand, dense, wet		-75 - -
- - 255 -										-80 <del>-</del>
- - - 260 - -						SM		SAND: 2.5Y 5/4 light olive brown, medium grained, race coarse sand, little fine sand, some silt, dense, wet SAND: 2.5Y 5/4 light olive brown, fine grained sand, race coarse sand, little medium sand, little silt, medium dense, wet	Bentonite Seal	- -85 - - -
- 265 - - -							- - -   t	SAND: 2.5Y 5/4 light olive brown, medium grained, rrace coarse sand, some fine sand, little silt, medium dense, wet		-90 - - - -
- 270 -						ML		SANDY SILT: 2.5Y 5/4 light olive brown, trace coarse grained sand, trace medium sand, some fine sand, medium dense, wet	6W 008	-95 - - - -
- 275 -										-100 - - -
- - 280 - -									n-situ Soli	-105 - - -
202									Indi	_110 _



Proj	ect Name	e: J-2 RANGE					Location:		
Nor	thing: M	1: 4620275.06, N	12: 4620	275.11, M3: 4	62027	5.16	Easting: M1: 374577.99, M2: 374577.99,	M3: 374577.99	9
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	:	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 290 -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, medium dense, wet	Bentonite Seal	115 -
- 295 300									120 -
- - - 305							SAND: 5Y 5/3 olive, fine grained, some silt, medium dense, wet, micaceous with muscovite or phlogopite		130 -
- - 310 -						: :  :	SAND: 5Y 4/2 olive gray, fine grained, some silt, medium dense, wet, micaceous with muscovite or phlogopite	-	- - - - - - -
- - 315 - - -									140 -
- 320 - - - - - 325							SAND: 5Y 5/3 olive, fine grained, trace coarse sand, some silt, medium dense, wet	Insitu Soil	145 -
-									}



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	1: 4620	)275.06, M	12: 4620	275.11, M3: 4	62027	5.16	Easting: M1: 374577.99, M2: 374577.99,	M3: 374577.9	9
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 330 - - - - 335						BR		SAND: 5Y 5/3 olive, fine grained, trace coarse sand, race medium sand, little fine angular to subrounded to subrounded gravel, some silt, medium dense, wet  SAND: 5Y 5/3 olive, fine grained, trace coarse sand, little medium sand, little fine angular to subrounded gravel, some silt, dense, wet		-155 — -160 — -
- 340									-	165 -
- - - 345 - - -								Notes: 1. Well Depths MW-327M1: 306.58 ft (BGS) MW-327M2: 275.66 ft (BGS) MW-327M3: 230.37 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-327M1: 9.98 ft MW-327M2: 10.00 ft MW-327M3: 9.99 ft 4. Screen Intervals MW-327M1: 296.06 - 306.04 ft (BGS) MW-327M1: 206.01 - 275.01 ft (BGS) MW-327M3: 200.16 - 230.15 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 174.97 ft (MSL)		-170 - - -175 -

								, 111				
Projec	ct Name	: J-2	RANGE						Location:			
North	ing: M	1: 462	0645.53, 1	M2: 4620	0645.58,	M3: 4	462064	5.63	Easting: M1: 374746.43, M	2: 374746.43, N	ИЗ: 374746.4	3
Drillin	g Contra	actor:	D. L. Mah	er Co.		Ele	evation t	ft (MSL	): M1: 187.42, M2: 187.42,	M3: 187.42 @	Top PVC	
Drillin	g Equipi	ment: [	Dual Air R	otary		We	ell Depth	n ft (BG	S): M1: 323.46, M2: 248.57	7, M3: 165.20	3: 165.20	
Drillin	g Metho	d: Air	r-Rotary			B⊦	l Depth/	Diam: (	335.50 ft (BGS), 8.00 in.	First Water ft (BGS): 133		
Samp	ling Met	hod: S	Stainless S	Steel Ba	ailer	Sta	art/End I	Date: 04/21/04 - 05/17/04		Well Diameter (in.): 2.50		
Const	t. Materia	als S	CH 80 P	٧C		Pro	oject Nu	ımber:	35AY5301	Static Water ft (	BTOC): 129.6	65
Logge	ed by: G	. Pier	ce Re	eviewed b	y: Larry	Pan	nell, P	G	Completion: Flushmount	Date Measured	: 02/15/05	
Depth ft (BGS)	Pegged by: G. Pierce Reviewed by: Larry  Reviewed by: Larry  Recondits  Sample Interval  Sample ID/FID  Sample ID/FID  Conduct  CP:  CP:  CP:  CP:  CP:  CP:  CP:  CP						USCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)
-											M1 M2 M3	190 -
-0 - -							OL		ORGANIC SILT: 10YR 4/4 dark yello fine angular to subrounded gravel, tra loose, damp (loam)			185 -
- -5							ML SP		SANDY SILT: 10YR 5/6 yellowish brograined sand, little coarse sand, trace trace fine angular to subrounded grav	medium sand,		-
- - -									SAND: 10YR 5/6 yellowish brown, m some coarse sand, trace fine sand, lit subrounded gravel, loose, dry		000000000000000000000000000000000000000	180 –
- 10 - - -									SAND: 10YR 5/6 yellowish brown, fir coarse sand, trace medium sand, trace subrounded gravel, loose, dry			175 –
- 15 -												-
- - - 20 -									SAND: 2.5Y 5/6 light olive brown, me some coarse sand, trace fine sand, tr subrounded gravel, loose, dry			170 -
- - - 25 -												165 - - -
- - - 30									SAND: 2.5Y 6/4 light yellowish brown some coarse sand, trace fine sand, tr subrounded gravel, loose, dry			- 160 - - -
-									SAND: 2.5Y 7/4 pale yellow, medium sand, trace coarse sand, loose, dry	grained, little fine	-	155 - -
- 35 -									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, loos			]



Proi	ect Name	e: .I-2 I	RANGE				171 77	Location:	
				2: 4620	645.58, M3: 4	62064	5.63	Easting: M1: 374746.43, M2: 374746.43, M3: 374746.4	.3
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	J/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class		Well  Lithologic Description Construction and Associated Lithographic Symbol Diagram	n (ft msl)
		,,,			_ 0 10				┸
-									150 -
- 40 - - - - - 45								SAND: 2.5Y 7/4 pale yellow, medium grained, some coarse sand, little fine sand, little fine angular to subrounded gravel, loose, dry	- 145 - -
- - - - 50								SAND: 2.5Y 6/4 light yellowish brown, medium grained, loose coarse sand, little fine sand, trace fine angular to subrounded gravel, loose, dry	140 -
- - - - 55								SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine angular to subangular gravel, loose, dry	135 –
- - - - 60									130 -
- - - - 65									125 -
- - - - 70								GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, some fine subangular gravel, little coarse sand, trace fine sand, medium dense, dry	120 -
- - - 75									115 -
- 80									- 110 - -
-								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine sand, angular to subangular gravel, loose, dry	-



						<u></u>	IVI VV -			
Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M		645.53, M	12: 4620	645.58, M3: 4	62064	5.63	Easting: M1: 374746.43, M2: 374746.43,	M3: 374746.4	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 85 -										105 -
- - - - 90 -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, loose, dry		100 -
- - - 95 -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine subangular to subrounded gravel, medium dense, dry		95 – - - -
- - - 100 -										90 -
- - - 105 -										85 <del>-</del> - - -
- - - 110 -							_	SAND: 2.5Y 6/6 olive yellow, medium grained, some coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, damp		80 - - - -
- - - 115 -							_		In-situ Soil	75 - - - -
- - - 120 -							_	SAND: 2.5Y 6/6 olive yellow, medium grained, some fine subangular to subrounded gravel, little coarse sand, trace fine sand, medium dense, damp  SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, little fine sand, trace fine subangular to subrounded gravel, medium dense, damp.		70 - - -
- - - 125 -								subrounded gravel, medium dense, damp		65 - - -
ŀ										60 –



Proj	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M1	1: 4620645.53,  l	M2: 4620	)645.58, M3: 4	62064	5.63	Easting: M1: 374746.43, M2: 374746.43,	M3: 37474	46.43
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construct Diagran	$\vec{g}$
- - 130 - - - - 135 - - -									\$ 55 - \$ 50 - \$
- - - - 145 -					SM	- - -	SAND: 2.5Y 4/4 olive brown, fine grained, little coarse sand, trace medium sand, some silt, little fine angular to subrounded gravel, dense, wet		45 -
- 150 155						$  \cdot \cdot \cdot  $	SAND: 2.5Y 4/4 olive brown, medium grained, little coarse sand, little fine sand, little silt, trace fine angular to subrounded gravel, medium dense, wet	1 1 1 1 1 1 1 1 1 1 1	35 -
- - - 160 -								DWW 000 P	30 - - - - - - 25 -
- 165 - - - - 170								- <b>*</b> -	20 -
-							SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, little medium sand, trace coarse sand, medium dense, wet		15-



Proje	ect Name	≕ J-2 RANG	 E				Location:		
Norti	hing: M1	1: 4620645.53,	M2: 46206	645.58, M3: 40	62064	5.63	Easting: M1: 374746.43, M2: 374746.43,	M3: 374746.4	3
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 -							SAND: 2.5Y 5/4 light olive brown, medium grained, little		-
- - 180							SAND: 2.5Y 5/4 light olive blown, medium grained, little coarse sand, little fine sand, little silt, trace fine angular to subangular gravel, medium dense, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little silt, little fine sand, trace coarse sand, trace fine angular to subangular gravel, trace coarse angular to		10 -
- - 185 -							subangular gravel, dense, wet		5
- 190 - -					SP	_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, medium dense, wet  SAND: 2.5Y 5/4 light olive brown, coarse sand grained,		-5-
- 195 -					SM		little medium sand, trace fine sand, trace fine subangular to subrounded gravel, medium dense, wet SAND: 2.5Y 4/4 olive brown, medium grained, trace coarse sand, some fine sand, little silt, medium dense,	-	-
- 200 -							SAND: 2.5Y 4/4 olive brown, medium grained, little coarse sand, little fine sand, trace coarse angular to subangular gravel, trace fine angular to subangular gravel, little silt, medium dense, wet	In-ship Soil	-10 <del>-</del>
- - 205 -							gato, illouin, mediam dones, nec		-10 -
- - 210 -					SP		SAND: 2.5Y 4/3 olive brown, medium grained, little coarse sand, little fine sand, angular to subrounded gravel, wet		-
- - 215							SAND: 2.5Y 4/4 olive brown, medium grained, little coarse sand, little fine sand, angular to subrounded gravel, wet		-25 <del>-</del>
-									-30 -



Project Name: J-2 RANGE						IVI VV -,	Location:		
-		1: 4620645.53, M	12: 4620	645 58 M3· 4	62064	5.63	Easting: M1: 374746.43, M2: 374746.43,	M3: 374746 43	
			12. 4020	043.30, 103.4		J.03	Lasting. W11. 374740.43, W2. 374740.43,	1013. 374740.40	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 - -					SM		SAND: 2.5Y 4/3 olive brown, fine grained, little silt, wet		-35 -
- 225 - - - -									-40 -
- 230 - - - - - 235							SAND: 2.5Y 5/4 light olive brown, fine grained, little silt, vet	Bentonite Seal	-45 <del>-</del>
- - - 240									-50 <del>-</del>
- - - 245 -								6w oos	-55 - - - -
- - 250 -									-60 <del>-</del>
- 255 2									-70 -
- 260 - - - - - - 265									-75 <del>-</del>

Proje	ect Name	: J-2 R/	ANGE					Location:		
Nort	hing: M1	: 462064	5.53, M	2: 4620	645.58, M3: 4	62064	5.63	Easting: M1: 374746.43, M2: 374746.43, M3	3: 374746.43	3
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Ziaiologio Boscription	Well construction Diagram	Elevation (ft msl)
- - - - 270								SAND: 2.5Y 4/3 olive brown, medium grained, little fine sand, angular to subrounded gravel, little silt, wet		-80 -
- - - 275 - -								SAND: 2.5Y 4/4 olive brown, medium grained, little fine sand, angular to subrounded gravel, little silt, wet		-85 - -90 -
- 280 - - - - - 285						SP		SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, angular to subrounded gravel, wet		-95 - -95 -
- - 290 - -								SAND: 2.5Y 5/4 light olive brown, medium grained, rrace fine sand, subangular to rounded gravel, wet		100 -
- 295 - - - - - 300						SM	- - -   1	SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, subangular to rounded gravel, little silt, wet		- - 110 - -
- - - 305								SAND: 2.5Y 4/4 olive brown, medium grained, trace fine angular to rounded gravel, little silt, wet  SAND: 2.5Y 4/3 olive brown, medium grained, trace		- 115 - - -
- - - 310								SAND: 2.5Y 5/4 light olive brown, medium grained,		120 - - - -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	: 4620	0645.53, M	2: 4620	645.58, M3:	462064	5.63	Easting: M1: 374746.43, M2: 374746.43,	M3: 374746.4	43
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6	S		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-								trace coarse sand, trace fine sand, little silt, wet		- -125 –
- 315 - - -								SAND: 2.5Y 5/4 light olive brown, coarse grained, little medium sand, angular to well rounded gravel, little silt, wet	gw ook	-130 <b>-</b>
- 320 - - - -							11-1-1-11	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, little silt, subangular to subrounded gravel, wet		- -135 -
- 325 - - -								SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, subangular to rounded gravel, little silt, wet		- -140 - -
- 330 - - -						BR		SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, angular to subrounded gravel, little silt, wet  BEDROCK: gray/black granodirite	In-eltu Soil	-145 -
- 335 - -							\(\cdot \cdot \cdo			- -150 -
- 340 -								Notes: 1. Well Depths MW-330M1: 323.46 ft (BGS) MW-330M2: 248.57 ft (BGS) MW-330M3: 165.20 ft (BGS) 2. SCH 80 PVC Screens		- - -155 —
- - 345 - -								3. Screen lengths MW-330M1: 10.03 ft MW-330M2: 10.03 ft MW-330M3: 10.02 ft 4. Screen Intervals MW-330M1: 313.10 - 323.13 ft (BGS) MW-330M2: 238.01 - 248.04 ft (BGS) MW-330M3: 154.97 - 164.99 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 187.73 ft (MSL)		-160 —

	LOC ID	, 111 11				
Project Name: J-2 RANGE			Location:			
Northing: M1: 4619075.40, M2: 4619075.45			Easting: M1: 373818.49, M2	2: 373818.49		
Drilling Contractor: D. L. Maher Co.	Elevation f	t (MSL): I	M1: 180.38, M2: 180.38 (	@ Top PVC		
Drilling Equipment: Dual Air Rotary	Well Depth	n ft (BGS):	M1: 245.72, M2: 205.58			
Drilling Method: Air-Rotary	BH Depth/	Diam: <b>34</b>	5.08 ft (BGS), 8.00 in.	First Water ft (B	3GS): 124	
Sampling Method: Stainless Steel Bailer	Start/End [	Date: 05/	5/11/04 - 06/14/04 Well Diameter		(in.): 2.50	
Const. Materials SCH 80 PVC	Project Nu	mber: 35	AY5301	Static Water ft (	BTOC): 107	.60
Logged by: L. Baerga Reviewed by: Larry F	Pannell, P	G C	Completion: Flushmount	Date Measured	: 09/19/06	
Blow Counts Blow Counts Sample Interval (Recovery Sample ID Sample ID Sample ID Sample ID 6 6 6 7 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Class 07		Lithologic Description and Associated Lithographic \$	Symbol	Well Construction Diagram	Elevation (ft msl)
					M1 M2	-
	OL	'  <sub>.</sub>  '  <sub>.</sub>   co	RGANIC SILT: 5Y 4/4 dark yellowis parse grained sand, little medium sar ngular gravel, little fine angular grave	nd, trace coarse		180 -
-5 -5 - -	SP	iit	AND: 2.5Y 6/4 light yellowish brown tle coarse sand, trace fine sand, som ravel, loose, dry	, medium grained, ne fine angular	- 1 000 000 000 000 000 000 000 000 000	175 -
-10 - - - -15						170 - - - - 165 -
-20		lit	AND: 2.5Y 6/4 light yellowish brown tle coarse sand, little fine sand, trace ubrounded gravel, loose, dry			160 -
			AND: 2.5Y 6/4 light yellowish brown ace coarse sand, little fine sand, loos			100 -
- 25	CM.		AND, O.EV.5/4 liable live become	ations and in ad	20000000000000000000000000000000000000	155 - - -
- 30	SM	sc S	AND: 2.5Y 5/4 light olive brown, me- ome coarse sand, little fine sand, little AND: 2.5Y 5/4 light olive brown, me- ome coarse sand, little fine sand, little	e silt, loose, damp dium grained,		150 - - -
- 35					#1 WG	145 - - -



Proie	ect Name	≕ J-2 RAI	NGE					Location:	
		1: 4619075.4		: 46190	075.45			Easting: M1: 373818.49, M2: 373818.49	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery		O/FID	Gamma L CPS Conductiv 2 6	USCS Class			Elevation (ft msl)
- - 40 - -						SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, some fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained,	- 140 – - -
- 45 -							\	trace coarse sand, trace fine sand, loose, dry	135 - - -
- - - 50 -							_	SAND: 25.Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, loose, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, dry	130 -
- - 55 - -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, dry	125 - - -
- - 60 - -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, dry	- 120 – - -
- - 65 - -								1	- 115 - - -
- 70 - -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, dry	- 110 - - -
- - 75 -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, trace	105 - -
- - - 80 -								coarse sand, trace fine sand, loose, dry	100 – -
- - - 85									95 -



Droi	oot Name	o LODANCE				Location:	_
		e: J-2 RANGE		075.45			_
INOIT	Tilling. M	1: 4619075.40, <b>I</b>	VIZ: 4619	U/5.45		Easting: M1: 373818.49, M2: 373818.49	_
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - - - - - - - - - - - - - - - - - -						SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine subangular to subrounded gravel, loose, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, loose, damp  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, damp	90 -
- 105 -						SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, loose, damp	75 -
- 110 - - - - 115 -						SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, trace fine angular to subrounded gravel, loose, damp	70 -
- 120 - -						SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine subangular to subrounded gravel, little silt, loose, wet	60 -
- 125 - - - - 130							55 -
-						SAND: 2.5Y 5/6 light olive brown, medium grained, some coarse sand, trace fine sand, little silt, medium dense, wet	50 -



Proje	ect Name	: J-2 RANGE				Location:		
Nort	hing: M1	1: 4619075.40, M	 45			Easting: M1: 373818.49, M2: 373818.49		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	mma Log CPS nductivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 135 -				SM		SAND: 2.5Y 5/6 light olive brown, medium grained, little fine sand, trace coarse sand, some silt, medium dense, wet		- 45 – -
- 140 -					$  \cdot \cdot \cdot  $	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine subangular to subrounded gravel, little silt, loose, wet		40 -
- 145 								35 -
- - 150 -						SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, little silt, medium dense, wet		30 -
- - 155 - -								25 -
- 160 -						SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, little silt, medium dense, wet		20 -
- 165 -								15 -
- 170 -					$  \cdot \cdot \cdot  $	SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, little medium sand, trace fine angular to subrounded gravel, medium dense, wet		10 -
- 175 -								5-
180						SILTY SAND: 2.5Y 5/4 light olive brown, fine grained		0-



Proje	ect Name	e: J-2	RANGE		LOC		1V1 VV -	Location:		
			075.40, M	12: 4619	075.45			Easting: M1: 373818.49, M2: 373818.49		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 185 - - - - - 190 -						SP		sand, trace coarse sand, little medium sand, trace fine angular to subrounded gravel, medium dense, wet  SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, little coarse sand, little medium sand, medium dense, wet  SAND: 2.5Y 5/4 light olive brown, coarse grained, little medium sand, little fine angular to subrounded gravel,	Bentonite Seal	-5 - -5 - 10 - 
- 195 200 205 205								trace silt, dense, wet. Gravel composed of multiple ithologies and colors  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine subangular to subrounded gravel, medium dense, wet	800 Wg	-15 - -15 - -20 - -25 - -
- 210 - 210 215								SAND: 2.5Y 6/3 light yellowish brown, medium grained, some coarse sand, trace fine sand, little fine angular to subrounded gravel, dense, wet	1088	-30 -30 - - -35
- 220 - 220 225						SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, little medium sand, little silt, loose, wet  SAND: 2.5Y 6/4 light yellowish brown, coarse grained, some medium sand, trace fine sand, little silt, medium dense, wet		-40 - -40 - - -45 -



Proje	ect Name	e: J-2 RANGE					Location:		
Nort	thing: M1	1: 4619075.40, M	2: 4619	075.45			Easting: M1: 373818.49, M2: 373818.49		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 230 -							SAND: 2.5Y 6/4 light yellowish brown, coarse grained, some medium sand, little fine sand, little silt, medium dense, wet	Bentonite 5	-50 <del>-</del>
- - 235 - -									-55 — - - -
- 240 - - - - 245						$  \cdot \cdot \cdot  $	SAND: 2.5Y 5/4 olive, medium grained, little coarse sand, some fine sand, trace fine angular to subrounded gravel, little silt, medium dense, wet	Ma coa	-60 - - - - -65 -
- - - - 250					SP		SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine angular gravel, trace silt,	1	-70 <del>-</del>
- - - 255 -							medium dense, wet		-75 -
- 260 -							SAND: 10YR 5/8 yellowish brown, medium grained, little coarse sand, trace fine angular to subangular gravel, trace silt, medium dense, wet		-80 <del>-</del>
- - 265 - -									-85 <del>-</del>
- 270 -					SM		SAND: 10YR 5/8 yellowish brown, medium grained, some coarse sand, trace silt, medium dense, wet  SAND: 10YR 5/6 yellowish brown, fine grained, trace		-90 <del>-</del>
- 275 -							coarse sand, little medium sand, little silt, medium dense, wet		-95 <del>-</del>



Proje	ect Name	e: J-2	RANGE				Location:	
Nort	hing: M	1: 46190	75.40, M	12: 4619	075.45		Easting: M1: 373818.49, M2: 373818.49	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Well  Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 280 - 285 - 285 - 290 - 290 							SAND: 10YR 5/8 yellowish brown, fine grained, little medium sand, some silt, medium dense, wet	-100 - -105 - -110 - -115 -
- - - 300							SAND: 2.5Y 5/6 yellowish brown, fine grained, little medium sand, some silt, medium dense, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, little	-120 -
- 305 -							coarse sand, little medium sand, some silt, medium dense, wet	-125 - - - -
- 310 -							SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, some silt, medium dense, wet	-130 <del>-</del>
- 315 - - - - 320								-135 - - -140 -
							SAND: 2.5Y 5/3 light olive brown, fine grained, little coarse sand, little fine angular gravel, some silt, dense, wet	

Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	: 4619	9075.40, M	12: 4619	075.45			Easting: M1: 373818.49, M2: 373818.49		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	S		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 325 - -										- -145 – - - -
- 330						SP		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little coarse sand, little medium sand, medium dense, wet		-150 <b>-</b> -
- - 335 -						GP	O a O a	GRAVEL: multi-colored fine angular gravel, little coarse angular gravel, dense, wet. Gravel composed of multiple lithologies		-155 — -155 -
- 340 -						SP GP	0,0,0	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little black angular coarse gravel, dense, wet GRAVEL: multi-colored fine angular gravel, dense, wet. Gravel composed of multiple lithologies		- -160 – - -
- - 345 -						BR		BEDROCK: granitic rock, black		- -165 –
- - - 350 - -								Notes: 1. Well Depths MW-331M1: 245.72 ft (BGS) MW-331M2: 205.58 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-331M1: 10.00 ft MW-331M2: 10.00 ft 4. Screen Intervals		-170 - - -170 - -
- 355 - -								4. Screen intervals MW-331M1: 235.41 - 245.41 ft (BGS) MW-331M2: 195.27 - 205.27 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 180.22 ft (MSL) Printed on 01/10/07		-175 - - - - -

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Proje	oct Name	· I_2	RANGE						Location:				
			8476.59, N	//2· 461	8476 64				Easting: M1: 375235.94, M	2· 375235 94			
			D. L. Mah			FI	evation	ft (MSI	.): M1: 172.39, M2: 172.39				
			Dual Air R						GS): M1: 295.24, M2: 175.52				
			-Rotary	Otal y					325.50 ft (BGS), 8.00 in.	First Water ft (B	CS).	103	
			Stainless S	Stool R	ailer				05/21/04 - 06/03/04	Well Diameter (			
			CH 80 P						r: 35AY5301 Static Water ft (BTO				
<u> </u>										+			00
Logg	ed by: L		ya Re	viewea	y: Larr		T .	G	Completion: Flushmount	Date Measured	04/	04/06	$\vdash \subseteq$
Depth ft (BGS)						PS 5 70	SCS Class		Lithologic Description and Associated Lithographic		Con	Well struction agram	Elevation (ft msl)
-												M1 M2	175 - -
-0 - -							OL SP		ORGANIC SILT: 10YR 4/4 dark yello medium grained sand, little fine sand, gravel, dry	wish brown, some little fine angular	1	8880000000	170 –
- -5 - - -									SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, little fine sand, little subrounded gravel, dry		000000000000000000000000000000000000000	30000000000000000000000000000000000000	- - - 165 -
- 10 -									SAND: 2.5Y 7/4 pale yellow, medium coarse sand, trace fine sand, dry	grained, trace			
-							0111		SAND: 10YR 6/6 brownish yellow, m little coarse sand, trace fine sand, dry				160 -
- 15 - - -							SW		GRAVELLY SAND: 2.5Y 6/4 light yel medium grained sand, little coarse sa sand, trace coarse angular to subang fine angular to subangular gravel, dry	nd, trace fine ular gravel, some	000000000000000000000000000000000000000	333333333333333333333333333333333333333	- 155 -
- 20 - -											300000000000000000000000000000000000000	330000000000000000000000000000000000000	150 -
- 25 - -											#1 WG	333333333333333333333333333333333333333	- - 145 - -
- 30 - - -									GRAVELLY SAND: 2.5Y 6/4 light yel medium grained sand, little coarse sa sand, trace coarse angular to subang fine angular to subangular gravel, dry	nd, trace fine ular gravel, some	300000000000000000000000000000000000000	330000000000000000000000000000000000000	- - 140 - -
- 35 - - -											200000000000000000000000000000000000000	300000000000000000000000000000000000000	135 -
- 40 - -							GP	Opon	GRAVEL: 2.5Y 5/4 light olive brown, subangular gravel, little coarse sand, sand, trace fine sand, dry				130 -

Proj	ect Name	: J-2 RANGE					Location:		
Nort	hing: M1	1: 4618476.59, N	/12: 4618	476.64			Easting: M1: 375235.94, M2: 375235.94		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 45 - 45 50 55 55					SP SW		SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, dry  SAND: 10YR 4/3 brown, medium grained, little coarse sand, little fine sand, some fine angular to subangular gravel, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, little fine angular to subrounded gravel, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular to subrounded gravel, dry		125 - 120 - 115 -
- - 60 -									110 -
- 65 - - - - 70							SAND; 2.5Y 6/4 light yellowish brown, coarse grained, little medium sand, trace fine sand, some fine angular to subrounded gravel, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, dry		105 -
- - - - 75 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, dry		100 -
- - 80 -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, dry		90 -
- 85 - - - - - 90						/	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, dry		85 -
- - - - 95							SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, some fine subangular to subrounded gravel, dry		80 -

Proje	ect Name	e: J-2 l	RANGE					Location:			
Nort	hing: M1	I: 46184	176.59, M	2: 4618	476.64			Easting: M1: 375235.94, M2: 375235.94			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma CPS Conduct 2 6	3	USCS Class	Lithologic Description and Associated Lithographic Symbol		ell ructior ram	Elevation (ft msl)
- 100 - 105								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine subangular to subrounded gravel, damp	In-situ Soil		- 75 - - - - - - - - - - - - - - - - - - -
- 110 - 110 115								SAND: 2.5Y 6/4 light yellowish brown, coarse grained, some medium sand, little fine subangular to subrounded gravel, damp			- - - 60 – - - - - - - - -
- - - 120 -								SAND: 2.5Y 6/4 light yellowish brown, coarse grained, some medium sand, little coarse angular to subrounded gravel, little fine subangular to subrounded gravel, damp			50 –
- - 125 - -							SM	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace fine angular to subrounded gravel, some silt, wet			- - - 45 –
- - 130 - - -								SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, trace fine subangular to subrounded gravel, some silt, wet			- - 40 -
- 135 - - -											35 –
- 140 - - -								SAND: 2.5Y 5/4 light olvie brown, medium grained, little coarse sand, little fine sand, trace fine subangular to subrounded gravel, some silt, wet			30 -
- 145 - - -											- 25 - -



Project Name: J-2 RANGE						Location:		
Nort	hing: M1	l: 4618476.59,	M2: 4618	3476.64		Easting: M1: 375235.94, M2: 375235.94		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval	PID/FID	Gamma L CPS Conductiv 2 6	် လို	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - - - - - 155 - -					SP	SAND: 2.5Y 5/4 light olive brown, medium grained, trace to little coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, wet	le Seal	20 -
- 160 - - - - - 165 -					SPSM	SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, trace to little silt, wet	Bendronte Sea	10 -
- 170 - 175					SM	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, some fine angular to subrounded gravel, little silt, wet	6w cos	0-
- - - - 180					SP	SAND: 2.5Y 7/3 pale yellow, medium grained, some coarse sand, trace fine angular to subrounded gravel, wet	-	-5 - -5 -
- 185 - - - - - - 190								-15 -
- - - - 195					SM	SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, some fine sand, little silt, wet		-20 - - -25 -
- - 200 -						SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, little silt, wet		-30 -



Proje	ect Name	e: J-2 RANGE			Location:	
Nort	hing: M1	1: 4618476.59, N	л2: 4618476.64		Easting: M1: 375235.94, M2: 375235.94	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Log CPS Conductivity 2 6 10	USCS Class	Well  Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 205 - - - - 210						-35 -
- - - 215 - -					SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, some fine sand, little silt, wet	-40 - - - - -45 -
- 220 - - - - 225 -						-50 - -50 - - - - -55 -
- 230 235					In-aitu Sol	-60 <del>-</del>
- 240					SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, little silt, wet  SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, trace medium sand, some silt, wet	-65 - - - - - -70 -
- 245 - 250						-75 -
- - - 255					SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, little silt, wet	-80 - -



Proje	act Name	e: J-2 RANGE	:		Location:	$\neg$
-		1: 4618476.59, I			Easting: M1: 375235.94, M2: 375235.94	$\dashv$
INOIT			WIZ. 4010470.04			=
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Log CPS Conductivity C 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (π ms
- - - 260					-8:	35 - - -
- - 265					-9i	-
- 270 -					-100	- - - 0 -
- 275 - - - - 280					-106	5 -
- - - 285 -					-110 SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine angular to -118	-
- 290 - -					subrounded gravel, little silt, wet  SAND: 2.5Y 5/6 light olive brown, medium grained, some coarse sand, little fine sand, little fine angular to subrounded gravel, little silt, wet  -120	0 -
- 295 - - -					-128	5 -
- 300 - - - - 305				SWSM	GRAVELLY SAND: 2.5Y 5/6 light olive brown, medium grained sand, little coarse sand, trace fine sand, little coarse angular to subangular gravel, some fine angular to subrounded gravel, little silt, wet	0 -
-					SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, little fine sand, some coarse angular to subangular gravel, little silt, wet	5 -

Project Na	me: J-2	2 RANGE					Location:		
Northing:		8476.59, N	12: 4618	476.64			Easting: M1: 375235.94, M2: 375235.94		
Depth ft (BGS) Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - - - - 315							GRAVELLY SAND: 10YR 6/8 brownish yellow, coarse grained sand, little medium sand, trace fine sand, some coarse angular to subrounded gravel, little fine angular to subrounded gravel, wet	In-situ Sol	- - 140 – - -
- - - 320					GP		GRAVELLY SAND: 2.5Y 4/4 olive brown, medium grained sand, little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, little silt, little clay, wet  GRAVEL: multi-colored fine angular to subrounded	-	- 145 – - -
- - - 325					BR	00000 / I	gravel, little coarse angular to subrounded gravel, wet  BEDROCK: Predominantly black fine angular gravel, little coarse angular gravel, wet. Gravel exhibits crystalline texture	-	150 – - - -
- - - 330							Notes: 1. Well Depths	-	155 - - -
- 335 335 							1. Well Depths MW-334M1: 295.24 ft (BGS) MW-334M2: 175.52 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-334M1: 10.00 ft MW-334M2: 10.00 ft 4. Screen Intervals MW-334M1: 285.00 - 295.00 ft (BGS) MW-334M2: 165.00 - 175.00 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 172.49 ft (MSL)		160 - - - - - - 165 -
- 340							Printed on 01/10/07		

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							<u> </u>	, <sub>1</sub> , 1, 1	W-333			
Proje	ct Name	: J-2	RANGE						Location: J-2 RANGE, WO	OOD ROAD		
North	ning: M	1: 461	8476.24, N	И2: 461	8476.29	, M3:	461847	6.34	Easting: M1: 374680.98, M	2: 374680.98, <b>N</b>	M3: 374680	.98
Drillir	ng Contra	actor:	D. L. Mah	er Co.		El	levation	ft (MSL	): M1: 177.30, M2: 177.30,	M3: 177.30 @	Top PV	
Drillir	ng Equip	ment: [	Dual Air R	otary		W	ell Deptl	h ft (BG	S): M1: 265.53, M2: 225.77	, M3: 130.26		
Drillir	ng Metho	d: Aiı	r-Rotary			ВІ	H Depth	/Diam: (	346.50 ft (BGS), 8.00 in.	First Water ft (E	3GS): 110	
Sam	oling Me	thod: S	Stainless S	Steel Ba	ailer	St	art/End	Date: (	06/07/04 - 07/08/04	Well Diameter	(in.): 2.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pı	roject Nu	ımber:	35AY5301	Static Water ft (	(BTOC): 10	6.29
Logg	ed by: G	. Pier	ce Re	eviewed b	y: Larr	y Par	nell, P	G	Completion: Flushmount	Date Measured	: 04/06/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	С	na Log PS 45 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)
-											M1 M2 M	180 -
-0 - - - -5							SP		SAND: 2.5Y 6/3 light yellowish brown little fine sand, dry	n, medium grained,		175 - -
- 10												170 - -
- - -									SAND: 2.5Y 5/3 light olive brown, me coarse sand, little fine angular to subr loose, dry			165 –
- 15 - - -									SAND: 2.5Y 5/4 light olive brown, me coarse sand, little fine angular to subr loose, dry			160 –
- 20 - - - - 25									SAND: 2.5Y 6/3 light yellowish brown trace coarse sand, dry	n, medium grained,		155 –
- 30									SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, dry	n, medium grained,		150 –
- - - - 35									SAND: 2.5Y 6/3 light yellowish brown	n, medium grained,	-	145 - -
- - -									trace coarse sand, dry		9	140 - -
- 40 - -									SAND: 2.5Y 5/4 light olive brown, me trace coarse sand, trace fine sand, dr		III MO	135 <b>-</b>

Proje	ect Name	e: J-2 l	RANGE					Location: J-2 RANGE, WOOD ROAD		
Nort	hing: M1		76.24, N	12: 4618	476.29, M3: 4	161847	6.34	Easting: M1: 374680.98, M2: 374680.98,	M3: 374680	.98
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	) SOS		Lithologic Description and Associated Lithographic Symbol	Well Constructio Diagram	Elevation (ft msl)
- - - 45 -								SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine subangular to subrounded		- - - 130 –
- - 50 -							-	SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, trace fine angular to subrounded gravel, dry		- - - 125 –
- - 55 - -								SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, dry		- - 120 – -
- 60 - - - - 65										- - 115 – -
- 70								SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, dry		- - 110 – - -
- - - - 75								SAND: 2.5Y 5/3 light olive brown, medium grained, trace fine sand, dry		105 <del>-</del> - - -
- - - 80								SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace fine sand, trace fine subrounded to rounded gravel, dry		- 100 - - - -
- - - 85										- 95 – - - -
- - - 90							_	SAND: 2.5Y 5/4 light olive brown, medium grained,		90 – - - -
- - - 95								trace fine sand, trace fine subangular to rounded gravel, dry		 85 - -

Proje	ect Name	∷ J-2 l	RANGE					Location: J-2 RANGE, WOOD ROAD			
Nort	hing: M1		76.24, M	12: 4618	476.29, M3: 4	61847	5.34	Easting: M1: 374680.98, M2: 374680.98,	M3: 37	4680.98	8
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		ell ruction ram	Elevation (ft msl)
								SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, dry	In-situ Sc		- 80 – -
- 100 - - - - - 105								SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, dry			- 75 - - -
- - 110								SAND: 2.5Y 5/3 light olive brown, medium grained, trace fine sand, trace fine subangular to well rounded gravel, damp		¥	- 70 – -
- - -								SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse sand, trace fine to coarse angular to subrounded gravel, damp	eal	*	65 –
- 115 - - -									Bentonite S		- 60 –
- 120 - -							_	SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, damp  SAND: 2.5Y 5/4 light olive brown, medium grained,			- 55 -
- - 125 -							_	SAND: 2.5Y 5/3 light olive brown, medium grained,	#00 Wg		- - 50 –
- 130 -							_	trace fine sand, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, wet			- - -
- 135								SAND: 2.5Y 5/4 light olive brown, medium grained,	<u> </u>		45 - - -
- - - 140								trace fine sand, wet			- 40 – -
-								SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, wet			35 -
- 145 - -											30 -



Proje	ect Name	e: J-2	RANGE					Location: J-2 RANGE, WOOD ROAD		
Nort	hing: M1	l: 46184	476.24, M	2: 4618	476.29, M3: 4	61847	6.34	Easting: M1: 374680.98, M2: 374680.98,	M3: 374680.9	8
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 -								SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, wet		25 -
- 155 - -							_	SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, wet		20 -
- 160 - -							_	SAND: 2.5Y 4/4 olive brown, medium grained, trace coarse sand, trace fine sand, wet		15 -
- 165 - - -									100	10 -
- 170 - -							_	SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, wet	Insitu	5-
- 175 - - -							_	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, trace fine subangular to subrounded gravel, wet		0-
- 180 - -							_	SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, wet		-5 -
- 185 - -										-10 -
- 190 -							_	SAND: 2.5Y 4/3 olive brown, medium grained, little fine sand, wet		-15 -
- 195 - -										-20 -
- 200 -							_	SAND: 2.5Y 4/3 olive brown, medium grained, wet		-25 -



Proje	ect Name	: J-2 RANGE					Location: J-2 RANGE, WOOD ROAD		
Nort	thing: M1	1: 4618476.24, M	12: 4618	476.29, M3: 4	61847	6.34	Easting: M1: 374680.98, M2: 374680.98,	M3: 374680.9	8
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 - - - - 210					GP SP	) 2000 2000 2000 2000 2000	SAND: 2.5Y 4/4 olive brown, medium grained, trace coarse sand, trace coarse subrounded to rounded gravel, wet  GRAVEL: 2.5Y 4/3 coarse gravel, angular to well rounded, wet  SAND: 2.5Y 5/3 light olive brown, medium grained, little coarse subangular gravel, wet	Bentonite Seal	-30 -
- - 215 - - - - - 220							SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, wet	00 Wg	-35 - - - -40 -
- - - 225 -							SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, wet	Six nos	-45 - 45 - 
- 230 - - - - - 235					SC		SAND: 2.5Y 4/1 dark gray, medium grained, some clay, trace fine sand, wet		-55 -
- 240 -					SP	000000 00000 00000	SAND: 2.5Y 4/1 dark gray, medium grained, trace fine sand, wet  GRAVEL: 2.5Y 4/1 dary gray, angular to subrounded, wet	In-elitu Soil	-60 <del>-</del>
- 245 - 245 -					CL	00000000000000000000000000000000000000	CLAV. 2 EV 4/4 dod: 5550 tosas Fig. 11 dod.		-70 -
- 250 -					SP		CLAY: 2.5Y 4/1 dark gray, trace fine grained sand, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, wet	Bentonite Sea	-75 -
- 255 -							SAND: 2.5Y 5/3 light olive brown, medium grained, little fine sand, wet		-



Proje	ect Name	e: J-2	RANGE					Location: J-2 RANGE, WOOD ROAD			
Nort	hing: M		476.24, N	12: 4618	476.29, M3: 4	61847	6.34	Easting: M1: 374680.98, M2: 374680.98,	M	3: 374680.	98
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well onstruction Diagram	Elevation (ft msl)
- - - 260 -							-	SAND: 2.5Y 6/2 light brownish gray, medium grained, trace fine sand, trace fine angular to subrounded gravel, wet  SAND: 2.5Y 6/2 light brownish gray, medium grained,	#00 Wg		-80 - -85 -
- 265 - - - - - - 270							-	SAND: 2.5Y 6/1 gray, medium grained, trace fine sand, trace fine subangular to rounded gravel, wet  SAND: 2.5Y 5/3 light olive brown, medium grained,	;		-90 -
- - - 275 -							-	trace fine sand, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, wet			-95 ·
- 280   								SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, wet			-105
- - - - 290							_	SAND: 2.5Y 5/4 light olive brown, fine grained, trace silt, wet			-110
- - - 295 -								Siit, WET			-115 -120
- 300 - 1							_	SAND: 2.5Y 5/3 light olive brown, fine grained, wet			-125
- 305 - -									In-situ Soil		-130

Proje	ect Name	: J-2 RANG	E				Location: J-2 RANGE, WOOD ROAD		
Nort	hing: M1	1: 4618476.24	M2: 4618	3476.29, M3: 4	61847	6.34	Easting: M1: 374680.98, M2: 374680.98,	M3: 374680.9	8
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - - - - - - 315							SAND: 2.5Y 5/3 light olive brown, fine grained, trace silt, wet		- -135 — -
- - - 320 -						_	SAND: 2.5Y 4/3 olive brown, fine grained, trace silt, wet		-140 - 
- 325 - - - - - 330						_	SAND: 2.5Y 4/2 dark grayish brown, fine grained, trace silt, wet		- - -150 – -
- - - - 335 -						_	SAND: 10YR 5/8 dark yellowish brown, medium grained, trace fine angular to subrounded gravel, wet  SAND: 10YR 5/2 dark grayish brown, medium grained, trace fine subangular to subrounded gravel, wet		-155 - -155 - - - -160 -
- 340 - 345							SAND: 10YR 5/2 dark grayish brown, fine grained, little fine subangular to well rounded gravel, wet		- - -165 - -
-					BR \	/	BEDROCK		- -170 - -
- 350 - - - - - 355							Notes: 1. Well Depths MW-335M1: 265.53 ft (BGS) MW-335M2: 225.77 ft (BGS) MW-335M3: 130.26 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-335M1: 10.00 ft		- - -175 - - - -
- - - 360							MW-335M2: 10.00 ft MW-335M3: 10.00 ft 4. Screen Intervals MW-335M1: 255.20 - 265.20 ft (BGS) MW-335M2: 215.25 - 225.25 ft (BGS) MW-335M3: 119.87 - 129.87 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 177.52 ft (MSL)		-180 <del>-</del> -1

Proje	ct Name	: J-2	RANGE						Location:				
North	ning: D:	4617	407.46, M	1: 46174	107.51				Easting: D: 374314.89, M1:	374314.89			
Drilli	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation 1	ft (MSL):	D: 158.09, M1: 158.07 @	Top PVC			
Drilli	ng Equip	ment: [	Dual Air R	otary		W	ell Deptl	n ft (BGS	S): D: 320.27, M1: 135.71				
Drilli	ng Metho	d: Aiı	r-Rotary			BH	H Depth/	Diam: 3	23.15 ft (BGS), 8.00 in.	First Water ft (B	GS)	: 97	
Sam	pling Met	hod: S	Stainless S	Steel Ba	ailer	Sta	art/End I	Date: 06	6/15/04 - 08/03/04	Well Diameter (	(in.):	2.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	ımber: 3	5AY5301	Static Water ft (	вто	C): 89	.72
Logg	ed by: L	Baeı	rga Re	viewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 04	/18/05	5
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CF 20 4 Condu	5 70	USCS Class		Lithologic Description and Associated Lithographic S	Symbol		Well nstructi Diagram	ा कुं∣
- - -0												D M1	160 –
- - - -5 -							SP		SAND: 2.5Y 7/4 pale yellow, medium coarse sand, little fine sand, little fine subrounded gravel, dry		•		155 – 155 –
- - 10 - - -									SAND: 2.5Y 5/4 light olive brown, me coarse sand, little fine sand, little fine a subrounded gravel, dry		_		150 - - - - 145 -
- 15 - - - - 20													140 -
- - -											#2 WG		135 -
- 25 - -													130 -
- 30									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, trace fine sand, dry	, medium grained,	-		100
- - 35 -													125 -
- - - 40 -													120 – - - -
- - - 45 -									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, little subrounded gravel, dry		-     <b> </b>   <b> </b>		115 -

Broi	oct Name	≕ J-2 F	DANCE					111 11	Location:	$\neg$
			7.46, M1:	16174	7 51				Easting: D: 374314.89, M1: 374314.89	
INOI	u iiig. <b>D.</b> ⊤		7.40, IVI I	. 40174						=
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma CPS Conduct 2 6	3	USCS Class		Lithologic Description and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - - 50 -									SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine angular to	10 -
- - - 55 -								-	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine angular to subrounded gravel, dry	- 05 - - -
- - - 60 - -									SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine angular to subrounded gravel, dry  10  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, dry	00 -
- - 65 - -										95 -
- - 70 -										90 -
- - 75 -									l i ra ra ra	85 -
- - 80 - -									lu Soil	80 -
- - 85 - -									SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, little fine subrounded gravel, dry	75 - - - - 70 -
- 90 -								_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine subangular to subrounded gravel, dry	65 –
- - 95 - -									$\nabla$	-
- - 100 -										60 -
- - 105									SAND: 2.5Y 6/4 light yellowish brown, medium grained,	55 -



Proje	ect Name	: J-2 R	ANGE					Location:		
Nort	hing: D:	4617407	.46, M1:	46174	07.51			Easting: D: 374314.89, M1: 374314.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 110 - 115 - 120								little coarse sand, trace fine sand, little fine subangular to subrounded gravel, trace coarse subangular to subrounded gravel, wet  SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, some fine angular to subrounded gravel, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, little fine angular to subrounded gravel, wet	Bentonite Seal	50
- - - 125								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine subangular to subrounded gravel, wet	Bentonite	35 -
- - - 130						SM	000 000 000 000	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, trace fine subangular to subrounded gravel, little silt, wet  GRAVEL: 2.5Y 6/4 light yellowish brown, fine angular to subrounded gravel, some coarse sand, wet	800 Wg	30 -
- - 135 -						SM		SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, little silt, wet		25 -
- - 140 - -								SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, some silt, wet		20 -
- 145 - - - - 150										10 -
- 155						SWSM		GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, little coarse sand, some fine angular to subrounded gravel, little coarse angular to subrounded gravel, little silt, wet		5- -
- 160 -								GRAVELLY SAND: 2.5Y 5/6 light olive brown, medium grained sand, coarse sand, some fine angular to subrounded gravel, little coarse angular to subrounded		0- - - -
- 165								gravel, little silt, wet		-5 <b>-</b>



Proje	ect Name	e: J-2	RANGE					Location:		
-			7.46, M1	: 46174	07.51			Easting: D: 374314.89, M1: 374314.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 170 - 175						SP		SAND: 2.5Y 5/6 light olive brown, coarse grained, some fine angular gravel, wet  SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, little fine sand, little silt, wet		-10 -
- 180 - 180 185								SAND: 10YR 5/6 yellowish brown, medium grained, trace coarse sand, some fine sand, little silt, wet		-20 - - - - -25 - -
- - 190 - -								SAND: 10YR 5/6 yellowish brown, fine grained, trace coarse sand, little medium sand, little silt, wet		-30 - -30 - - -35 -
- 195 - - - - - 200								SAND: 2.5Y 5/4 light olive brown, fine grained, trace		-40 -
- - - 205								coarse sand, little medium sand, little silt, wet		-45 - - -
- 210 						SC	////	SAND: 5Y 5/3 olive, fine grained sand, trace coarse, trace medium sand, little fine angular to subrounded gravel, trace silt, some clay, wet		-50 -
- 215 - -										-55 - - - -60 -
- 220 - - - - - - 225							·/·/:	SAND: 5Y 5/3 olive, fine grained sand, trace coarse, little medium sand, trace fine angular gravel, little silt, some clay, wet	In-eitu Sol	-65 -

Proj	ect Name	: J-2 RANGE				Location:		
Nor	thing: D:	4617407.46, M1	: 46174	07.51		Easting: D: 374314.89, M1: 374314.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 230 - 235 - 235 - 240 - 245 - 250					SM	SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, little silt, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, trace fine angular gravel, little silt, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, little silt, wet  SAND: 2.5Y 6/6 olive yellow, fine grained, some silt,		-70 - -75 - -80 - -85 - -90 -
- - 255 - -						little gray clay, wet	-	-95 - -95 - - - 
- 260 - - - - - 265					CL	SAND: 2.5Y 5/3 olive, fine grained, some silt, little gray clay, wet  CLAY: 5Y 5/3 olive, clay, little silt, wet		-105 -
- - - 270					ML	SILT: 5Y 5/3 olive, silt, some clay, little fine sand, wet	-	- -110 – -
- - - 275 -							-	-115 - - -
- - - 280 -					SM	SAND: 2.5Y light olive brown, medium grained, little fine sand, some silt, little clay, wet  SAND: 2.5Y 6/6 olive yellow, medium grained, little fine sand, some silt, little clay, wet	-	·120 -
- - -						sanu, some siit, littie ciay, wet		125 -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: D:	46174	107.46, M1	: 46174	07.51			Easting: D: 374314.89, M1: 374314.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 285 - - - - - 290								SAND: 2.5Y 6/4 light yellowish brown, medium grained,		- - -130 — -
- - 295 - - - - - - 300								little fine sand, little silt, wet		-135 - -135 - - - -140 -
- - - 305 - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained,	Bentonite S.	-145 - -145 - - - - -150 -
- 310 - - - - - 315 -						GP	00000000000000000000000000000000000000	trace coarse sand, little fine sand, little silt, wet  GRAVEL: 5Y 4/1 dark gray, fine angular gravel, trace coarse angular gravel, wet. Few rounded pieces of gravel		- - -155 — - -
- - 320 -						SP GP BR	ŏ° ŏ° Λ <sup>V</sup> <Λ	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, little fine angular gravel, wet  GRAVEL: 5Y 4/1 dark gray, fine angular to subangular crystalline gravel. No rounded or subrounded gravel observed beginning at 321' bgs		- -160 – - -
- - - 325 -							I 1	BEDROCK		-165 - - - -
- - 330 -								Notes: 1. Well Depths MW-336D: 320.27 ft (BGS) MW-336M1: 135.71 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths		- -170 - - - -
- - - 335 -								3. Screen lengths MW-336D: 10.00 ft MW-336M1: 10.00 ft 4. Screen Intervals MW-336D: 309.94 - 319.94 ft (BGS) MW-336M1: 125.18 - 135.18 ft (BGS) 5. Slot Size 0.010 in.		- -175 - - - -
- - - 340								6. Surface Elevation: 158.71 ft (MSL) Printed on 01/10/07		- -180 - -

Proje	ct Name	· .J-2	RANGE						Location:					
			0199.12, 1	M1: 462	20199.17	7			Easting: D: 374407.83, M	1: 374407.83				
			D. L. Mah			_	evation 1	t (MSL	): D: 189.14, M1: 189.14 @					
Drillir	ng Equip	ment: [	Dual Air R	otary		_			SS): D: 320.37, M1: 254.09	·				
Drillir	ng Metho	d: Aiı	r-Rotary			_			321.69 ft (BGS), 8.00 in.	First Water ft (B	GS)	: 14	0	
Sam	pling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End I	Date: (	06/15/04 - 08/09/04	Well Diameter (	(in.):	2.	50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	mber:	35AY5301	Static Water ft (	вто	)C): ·	126.	06
Logg	ed by: G	i. Pier	ce Re	eviewed b	y: Larry	Pan	nell, P	G	Completion: Flushmount	Date Measured	: 06	8/16/	05	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conduct 2 6	70	USCS Class		Lithologic Description and Associated Lithographic	Symbol		Wel onstru Diagra	ction	Elevation (ft msl)
- - -0							SP	3888888	SAND: 2.5Y 4/2 dark brownish gray,	medium grained		D M ⊞⊟⊞	11 □ <u>□</u>	190 -
- - - -5							01		trace subangular to rounded gravel, d				300000000000000000000000000000000000000	185 -
- - - - 10									SAND: 2.5Y 4/3 olive brown, medium sand, dry	grained, little fine			3333333333333333	180 -
- - - - 15									SAND: 2.5Y 5/4 light olive brown, me trace fine sand, dry	dium grained,			300000000000000000000000000000000000000	175 -
- - - - 20									CAND. 2 5V 4/2 alive brown modification	arained trace	-		300000000000000000000000000000000000000	170 -
-									SAND: 2.5Y 4/3 olive brown, medium fine sand, dry	grained, trace			33300	-
- - - 25 -									SAND: 2.5Y 6/3 light yellowish brown trace angular to well rounded coarse (				300000000000	165 –
- - - 30									SAND: 2.5Y 5/3 light olive brown, me trace fine sand, little subangular to sul dry				200000000000	160 –
-  -  -									SAND: 2.5Y 5/4 light olive brown, me trace fine sand, dry	dium grained,	M WG		200000000000	-
- 35 -									SAND: 2.5Y 5/3 light olive brown, me fine sand, dry	dium grained, little	*		200000000000000000000000000000000000000	155 - - -
- - - 40 -									SAND: 2.5Y 6/3 light yellowish brown little fine sand, dry	, medium grained,			300000000000000000000000000000000000000	150 - -
- - - 45													3000000000000	145 –
ŀ														]

Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: D:	46201	99.12, N	/11: 462	0199.17			Easting: D: 374407.83, M1: 374407.83	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 50 -								SAND: 2.5Y 7/3 pale yellow, medium grained, some fine sand, dry	- 1 33333333333333333333333333333333333	140 -
- - 55 -							_	SAND: 2.5Y 7/3 pale yellow, medium grained, some fine sand, trace subangular to subrounded gravel, dry	-   130   13	135 - - - - 130 -
- 60 - - - - 65							_	SAND: 2.5Y 7/4 pale yellow, medium grained, some fine sand, dry	1   333   333   333   334   335	125 -
- - - 70							_	SAND: 2.5Y 7/3 pale yellow, medium grained, some fine sand, dry  SAND: 2.5Y 6/3 light yellowish brown, meidum grained,		120 -
- - - 75							_	trace fine sand, dry  SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, trace subangular to subrounded gravel, dry		115 -
- 80 -							_	SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace fine sand, dry		110 -
- - 85 -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace fine sand, dry		105 -
- - 90 -							_	SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace fine sand, dry		100 -
- 95 - -							_	SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace fine sand, trace coarse sand, dry		95 - - - - 90 -
- 100 - -							_	SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace fine sand, trace angular to subrounded gravel, dry		85 -
- 105 -								SAND: 2.5Y 6/3 light yellowish brown, medium grained, trace fine sand, dry		-

			RANGE					Location:		
Nort	hing: D:		99.12, N	/11: 462	0199.17			Easting: D: 374407.83, M1: 374407.8	3	_
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Flevation (# mel)
110 115								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace fine sand, dry		81
120								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace fine sand, damp		7
125 130							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, damp	<b>T</b>	6
135							ΔΔ	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace fine sand, dry		Ę
140						GP SP		GRAVEL: 2.5Y 6/3 light yellowish brown, coarse subangular to subrounded gravel, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained.	-	5
145						JF		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, subangular to subrounded gravel, wet		4
150							_	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, wet	Insitu Soil	
155							_	SAND: 2.5Y 6/3 light yellowish brown, medium grained, some coarse sand, trace fine subangular to rounded gravel, wet		3
160								SAND: 2.5Y 5/4 light olive brown, medium grained, trace fine sand, wet		3
165							-	SAND: 2.5Y 4/3 olive brown, medium grained, trace fine sand, wet		2

Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: D:	46201	99.12, N	/11: 462	0199.17			Easting: D: 374407.83, M1: 374407.83	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 170 -										20 -
- - 175 - - - - 180								SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, trace fine sand, wet		15 - - - - 10 - -
- - 185 -							_	SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, trace fine subangular to subrounded gravel, wet		5-
- - 190 -								SAND: 2.5Y 5/2 grayish brown, medium grained, some coarse sand, trace coarse sand, trace fine subangular to subrounded gravel, wet  SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, trace fine sand, wet		- 0- -
- - 195							_			-5 -
- 200 -							_	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, wet  SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, trace fine sand, wet		-10 - -10 -
- 205 -								SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular to subrounded gravel, wet		-15 <del>-</del>
- - 210								SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, wet		-20 <del>-</del>
- 215 -							_	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, wet		-25 <del>-</del>
- - 220							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace fine sand, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, trace fine sand, wet		-30 -
225								adoc codise sand, dace line sand, wet		-35 -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: D:		99.12, N	/11: 462	0199.17			Easting: D: 374407.83, M1: 374407.8	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - -								SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, trace fine sand, wet		- - - -40 -
- 230 - - - - 235							_	SAND: 2.5Y 4/4 olive brown, medium grained, some fine sand, trace silt, wet		-45 —
- 240 							-	SAND: 2.5Y 4/4 olive brown, fine grained, trace silt, wet	Bentonite Sea	-50 <del>-</del>
- - 245 - -									84	-55 <del>-</del>
- - 250 - -							_	SAND: 2.5Y 4/4 olive brown, medium grained, trace coarse sand, trace fine sand, wet	6W 004	-60 - - -
- - 255 - -										-65 — - -
- 260 -							_	SAND: 2.5Y 4/3 olive brown, medium grained, some fine sand, wet		-70 — - - -
- 265 -								SAND: 2.5Y 5/3 light olive brown, medium grained, some fine sand, wet		-75 <del>-</del> - -
- - 270 - -						SM		SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, wet		-80 <del>-</del> - -
- - 275 - -								SAND: 2.5Y 5/3 light olive brown, fine grained, some silt, wet		-85 <del>-</del> - - -
- 280 								SAND: 2.5Y 4/3 olive brown, fine grained, some silt, wet	In-situ Soil	-90 - - - -



Proje	ect Name	e: J-2 RANGI	<u> </u>				Location:		
-		4620199.12,		P0199 17			Easting: D: 374407.83, M1: 374407.83	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Constructio Diagram	Elevation (ft msl)
- 285 - 290 - 295 - 300 - 305 - 310	B b b b b b b b b b b b b b b b b b b b	N. N	Id.	2 6 10	SP		SAND: 2.5Y 4/4 olive brown, fine grained, trace silt, wet  SAND: 2.5Y 4/3 olive brown, medium grained, trace coarse sand, trace fine subangular to rounded gravel, wet	Distribute Seal	-95
- 315 - 315 					GP	00000000000000000000000000000000000000	GRAVEL: various colors, angular to rounded gravel, little sand, trace silt, wet  GRAVEL: various colors, angular gravel, little sand, trace silt, wet	BAN ONE	-125 - -125 - - -130 -
- - - - 325					BR	N. K. W.	BEDROCK: bedrock encountered  Notes: 1. Well Depths		-135 —
- 330 - 335							MW-337D: 320.37 ft (BGS) MW-337M1: 254.09 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-337M1: 10.00 ft MW-337M1: 10.00 ft 4. Screen Intervals MW-337D: 310.00 - 320.00 ft (BGS) MW-337M1: 243.71 - 253.71 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 189.34 ft (MSL)		-140 - -140 - - - - -145 -
}							Printed on 11/01/06		-

Draft Page 1 of 7

Proie	ct Name	: J-2	RANGE						Location:			
<u> </u>			8319.25, N	И2: 461	8319.30				Easting: M1: 374443.03, M3	2: 374443.03		
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation t	ft (MSL)	): M1: 168.18,  M2: 168.18 (	@ Top PVC		
Drillir	ng Equip	ment: [	Dual Air R	otary		_			S): M1: 243.30, M2: 223.30			
Drillir	ng Metho	d: Air	r-Rotary			BH	H Depth/	Diam: 3	328.02 ft (BGS), 8.00 in.	First Water ft (B	BGS): 110	
Samp	oling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End I	Date: (	06/24/04 - 07/15/04	Well Diameter (	(in.): 2.50	
Cons	t. Materi	als S	CH 80 P\	/C		Pr	oject Nu	ımber: ;	35AY5301	Static Water ft (	(BTOC): 97	.18
Logg	ed by: L	. Baer	ga Re	eviewed b	y: Larry	Pan	nell, P	G	Completion: Flushmount	Date Measured	: 04/04/06	6
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conduct 2 6	70	USCS Class		Lithologic Description and Associated Lithographic \$	Symbol	Well Constructi Diagram	at
-											M1 M2	170 –
-0 -							SM		SAND: 2.5Y 4/2 dark grayish brown, little fine sand, trace fine gravel, some	medium grained,		-
- - -5 -							SP		SAND: 2.5Y 6/4 light yellowish brown little coarse sand, trace fine sand, dry		200000000000000000000000000000000000000	165 - - - -
- - 10 - - - -									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, some fine angular to gravel, dry			160 - - - - 155 -
- 15 - -									SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine angular t gravel, dry		888888888888888888888888888888888888888	
- - 20 -							SW		GRAVELLY SAND: 2.5Y 5/4 light oliv grained sand, little coarse sand, some subangular gravel, trace coarse grave	fine angular to	300000000000000000000000000000000000000	150 - - -
- - 25 -											200000000000000000000000000000000000000	145 - -
- - 30 -											300000000000000000000000000000000000000	140 –
- - - 35							SP		SAND: 2.5Y 7/3 pale yellow, medium coarse sand, trace fine angular to sub dry			135 <b>-</b>
- - - 40												130 -
-									SAND: 2.5Y 6/4 light yellowish brown little coarse sand, some fine angular to			



Proje	ect Name	: J-2	RANGE					Location:		
Nort	hing: M1	: 46183	319.25, M	2: 4618	319.30			Easting: M1: 374443.03, M2: 374443.03		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 45 -								gravel, dry	00000000000000000000000000000000000000	125 -
- - 50 - - - - - 55							_	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, some fine angular to subangular gravel, dry	- 1000000000000000000000000000000000000	120 - - - - - 115 -
- - - 60							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine angular gravel, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, some fine angular to subangular	-   100000000000000000000000000000000000	110 -
- - 65 -								gravel, dry	00000000000000000000000000000000000000	105 -
- - 70 - -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, some fine angular to subangular gravel, dry	- 1000000000000000000000000000000000000	100 -
- - 75 - - -									30000000000000000000000000000000000000	95 - - - - 90 -
- 80 - - - - 85							_	SAND: 2.5Y 6/4 light yellowsih brown, medium grained, trace coarse sand, little fine sand, trace fine angular to subangular gravel, dry	-	85 -
- 85 - - - - - 90								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, some fine angular to subangular gravel, dry		80 –
- - - - 95										75 –



Broi	oct Name	e: J-2 RANG	· E			171 77	Location:		
-				2240.20					
INOIT	I IIIIg. IVI	1: 4618319.25,	WZ: 46 18	3319.30			Easting: M1: 374443.03, M2: 374443.03		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 100 - - - -							SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine angular to		▼ 70
- 110							SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, little fine angular to		€00 - ¥
- - - 115 -						,	subangular gravel, dry/damp  GRAVEL: 2.5Y 6/4 light yellowish brown, fine angular		55 -
- 120 -					GP SM		to subangular gravel, some coarse sand, little medium sand, damp  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine angular to subangular gravel, little silt, wet		50 -
- 125 -									45 - - - - - 40 -
- 130 - - -					SP		SAND: 2.5Y 5/4 light olive brown, fine grained, little coarse sand, some medium sand, little silt		- - - 35 -
- 135 - - -									30 -
- 140 - - - - - 145					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, some silt, wet		25 -
-								In-stu Soil	20 -



Proje	ect Name	: J-2 RANGE					Location:		$\neg$
Nort	hing: M1	1: 4618319.25, M	 12: 4618	319.30			Easting: M1: 374443.03, M2: 374443.03		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - - - - - 155 - -							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, little fine angular to subrounded gravel, little silt, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, some fine sand, little silt, wet		15 -
- 160 - - - - - 165					SP		GRAVELLY SAND: 2.5Y 5/4 light olive brown, coarse grained sand, some fine angular to subangular gravel, trace coarse gravel, wet		5-
- 170 - 175 - 175					SMSM		SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, little silt, wet  GRAVEL: multi-colored, fine angular to subangular gravel, little coarse sand, trace medium sand, little silt, wet		
- - - 180 - - - - - 185					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, little fine sand, little fine angular to subrounded gravel, little silt, wet		-10 - -10 - - - -15 -
- 190 					GP	00000000000000000000000000000000000000	GRAVEL: 2.5Y 6/4 light yellowish brown, multi-colored fine angular to subrounded gravel, trace coarse angular gravel, little coarse sand, wet  GRAVEL: 2.5Y 6/4 light yellowish brown, fine angular to subrounded gravel, trace coarse gravel, some coarse sand, little medium sand, trace fine sand, trace silt, wet		-20 - -20 - - - 25 -
- 195 - - - - 200 -					SWSM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, little fine angular gravel, trace silt, wet  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, little coarse sand, trace fine sand, some fine angular to subrounded gravel, little silt, wet		-30 -



				LUC		IVI VV -,			
		: J-2 RANGE					Location:		
Nort	hing: M1	1: 4618319.25, M	2: 4618	319.30			Easting: M1: 374443.03, M2: 374443.03		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 205 - - - - 210						:::   :   r	GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, little coarse sand, trace fine sand, some fine angular to subrounded gravel, trace	Bentonite Seal	-35 - - - - -40 -
- - 215 -					SM		SAND: 10YR 5/4 yellowish brown, medium grained, ittle coarse sand, trace fine sand, little fine angular to subrounded gravel, trace coarse gravel, little silt, wet	BAN OOR	-45 - - - -
- - 220 - -					SMSC		CLAYEY SAND: 2.5Y 5/6 light olive brown, medium grained sand, little coarse sand, trace fine sand, little silt, little gray clay, trace fine angular to subrounded gravel, wet  SAND: 2.5Y 5/4 light olive brown, medium grained,		-50 <del>-</del>
- 225 - - - - - 230						:  <b> </b>  :// t	race coarse sand, little fine sand, some silt, little clay, wet	Bentonite Seal attu S	-60 -
- 235					ML		SANDY SILT: 2.5Y 6/4 light yellowish brown, trace coarse sand, trace medium sand, some fine sand, trace fine angular gravel, wet		-65 -
- - - 240 -								5w oos	-70 <del>-</del>
- - - 245 -					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained,		-75 -
- - 250 -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, little fine angular gravel, some silt, wet		-80 -
- - 255 -									-85 -

Proj	ect Name	: J-2 RANGE			Location:	
Nor	thing: M	1: 4618319.25, M	12: 4618319.30		Easting: M1: 374443.03, M2: 374443.03	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - - - 260 -					SAND: 2.5Y 5/4 light olive brown, fine grained, little coarse sand, little medium sand, little fine angular gravel, some silt, wet	- -90 — -
- - 265 - -					SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, some silt, wet	-95 - -95 - -
- 270 - - - - - 275					SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, some silt, wet	- - -
- - - - 280					-11	10 -
- - - 285 -					SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, little silt, wet  -11  SAND: 2.5Y 5/4 light olive brown, fine grained, trace	15 - -
- - 290 -					SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, some silt, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, some silt, trace clay, wet	20 - - - -
- - 295 -					-12	25 - - -
- 300 -				SMSC	-13 -13 -13 -13 -13 -13 -13	30 -
- 305 - -					-13	-
}					-14	40 -

Proje	ect Name	e: J-2	RANGE						Location:		
Nort	hing: M1	1: 4618	3319.25, M	12: 4618	319.30				Easting: M1: 374443.03, M2: 374443.03		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	C Condu	na Log PS uctivity 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 31U - - - - 315							CL		CLAY: 2.5Y 5/3 light olive brown, clay, damp		- - -145 –
- - - 320 -							ML		SILT: 2.5Y 6/6 olive yellow, silt, little fine sand, wet		- -150 - - - -
- - 325 - -							GP BR		GRAVEL: blank, pink granitic angular to subrounded gravel, little coarse sand, little medium sand, wet. Gravel becomes all angular at 327.52 bgs BEDROCK		-155 <del>-</del> - - -160 <del>-</del>
- 330 -									Notes: 1. Well Depths MW-339M1: 243.30 ft (BGS) MW-339M2: 223.30 ft (BGS)		-165 -
- 335 - - - - - 340									XX-339M2: 223.00 ft (BGS)  2. SCH 80 PVC  Screens 3. Screen lengths MW-339M1: 10.00 ft MW-339M2: 10.00 ft 4. Screen Intervals MW-339M1: 233.00 - 243.00 ft (BGS) MW-339M2: 213.00 - 223.00 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 168.84 ft (MSL)		-170 – -
-									Printed on 01/10/07		-

							O 1L		W-340			
Proje	ct Name	: J-2	RANGE						Location:			
North	ning: D	: 4620	0708.94,	M1: 462	20708.	99, M	2: 462	0709	.04 Easting: D: 374574.33, M	1: 374574.33,	M2: 3745	74.33
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL	): D: 198.68, M1: 198.68, N	И2: 198.68 @	Top PVC	
Drillir	ng Equip	ment: [	Dual Air R	otary		W	ell Dept	h ft (BC	GS): D: 340.14, M1: 266.12,	M2: 225.38		
Drillir	ng Metho	d: Aiı	r-Rotary			BH	H Depth	/Diam:	348.41 ft (BGS), 8.00 in.	First Water ft (B	st Water ft (BGS): 145.45	
Sam	pling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date:		Well Diameter (	(in.): 2.50	
Cons	t. Materi	als S	SCH 80 P	/C		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	(BTOC): 138	.50
Logg	ed by: G	. Pier	ce Re	eviewed b	y: Ları	ry Pan	nell, P	G	Completion: Flushmount	Date Measured	: 08/16/05	
Depth ft (BGS)	Blow Counts Sample Interval Sa						USCS Class		Lithologic Description and Associated Lithographic \$	Symbol	Well Constructio Diagram	Elevation (ft msl)
-											D M1 M2	200 –
-0 -							PT		LOAM: 2.5Y /1 black, loose, dry			- - -
-5							SP		SAND: 2.5Y 5/3 light olive brown, fine dry	grained, loose,		195 - - -
									SAND: 2.5Y 5/3 light olive brown, me trace fine sand, dry	dium grained,		- - 190 –
- 10 -									SAND: 2.5Y 5/4 light olive brown, me trace fine subangular to subrounded g		-	- - -
- - - 15 -									SAND: 2.5Y 5/3 light olive brown, me trace coarse sand, trace fine subangu gravel, dry			185 - - - -
- 20 -									SAND: 2.5Y 5/3 light olive brown, me some coarse sand, trace fin subangul:		-	180 – - -
- - - 25									gravel, dry			- 175 - - -
- - - 30									SAND: 2.5Y 5/3 light olive brown, me	dium grained,	-	- 170 - -
- - - 35									trace fine sand, dry			- - 165 – -
-									SAND: 2.5Y 5/4 light olive brown, me trace coarse sand, trace fine sand, dry			- - - 160 -
- 40 -									SAND: 2.5Y 6/3 light yellowish brown trace fine sand, trace subrounded to redry			- - -

Proje	ect Name	e: J-2	RANGE					Location:	
Nort	hing: D:	46207	08.94, N	/11: 462	0708.99, M2	2: 4620	0709.04	Easting: D: 374574.33, M1: 374574.33, M2: 374574	.33
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	á	Lithologic Description  Construction and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - - 45									55 – -
- 50 - 50 - 55							t		50 - - - - - 45 -
- - - - 60								AND: 2.5Y 6/4 light yellowish brown, medium grained, race fine sand, dry	- - 40 - - -
- - - 65 -								AND: 2.5Y 5/3 light olive brown, medium grained, race fine sand, subangular to subrounded gravel, dry	35 -
- 70 -								SAND: 2.5Y 6/3 light yellowish brown, medium grained, acce fine sand, dry	30 -
- 75 -									25 -
- - 80 - -							S t	AND: 2.5Y 5/4 light olive brown, medium grained, race fine sand, dry	20 -
- 85 - -								AND: 2.5Y 5/4 light olive brown, medium grained, race fine subangular to rounded gravel, dry	15 -
- - 90 - -								AND: 2.5Y 6/4 light yellowish brown, medium grained, race fine sand, dry	10 -
- - 95 -									05 -



							<u>.                                    </u>	IVI VV	-540				
Proje	ect Name	: J-2 R	ANGE						Location:				
Nort	hing: D:		3.94, N	11: 462	0708.99	, M2	: 4620	709.0	)4 Easting:	D: 374574.3	3, M1: 374574.33	B, M2: 374	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval	Sample Id	PID/FID	Gamma CPS Conduct 2 6	S	USCS Class			thologic Descrip		Well Constructi Diagram	ा क्रा
	ш С	S F	o	_	2 6	10						Diagram	
- - - 100									SAND: 2.5Y	6/3 light yellowish b	orown, medium grained, ded gravel, loose, dry		100 -
- - - 105 -								_		6/4 light yellowish b	prown, medium grained,	_	95 -
- - 110 -								-	SAND: 2.5Y	6/4 light yellowish b	prown, fine grained, dry	-	90 -
- - 115 - -								-	SAND: 2.5Y trace coarse	6/4 light yellowish b sand, trace fine san	orown, medium grained, id, dry	-	85 – - - -
- - 120 -								-	SAND: 2.5Y trace mediun	6/3 light yellowish b	prown, fine grained,	-	80 -
- - 125 -								-	SAND: 2.5Y trace fine sar	5/3 light olive brown	n, medium grained,	-	75 – - -
- - - 130								_	SAND: 2.5Y	6/4 light yellowish b	prown, medium grained, r to subrounded gravel,	-	70 -
- - - 135								_	dry	6/4 light yellowish b	prown, medium grained,	-	65 –
- - - 140								-	trace fine sul	pangular to rounded		,	<b>y</b> 60 -
- - - - 145									trace fine sar		orown, medium grained,		55 –
-									SAND: 2.5Y little fine sub	6/4 light yellowish brounded gravel, dry	orown, medium grained,		∑ - 50 -

Proj	ect Name	: J-2 RANG					Location:	
Nor	thing: D:	4620708.94,	M1: 462		: 4620	709.04	Easting: D: 374574.33, M1: 374574.33, M2: 37457	74.33
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 150 - - - - - 155 -						[33333] r	SAND: 2.5Y 5/3 light olive brown, coarse grained, little nedium sand, trace fina angular to subrounded gravel, lamp	45 -
- - 160 -							SAND: 2.5Y 4/4 olive brown, fine grained, trace nedium sand, wet	40 -
- 165 - - - - - 170						_	SAND: 2.5Y 4/3 olive brown, coarse grained, trace nedium sand, trace subrounded gravel, wet	30 -
- - - 175 -							SAND: 2.5Y 5/3 light olive brown, coarse grained, little nedium sand, trace fina angular to subrounded gravel, lamp  SAND: 2.5Y 4/4 olive brown, fine grained, trace nedium sand, wet  SAND: 2.5Y 4/3 olive brown, coarse grained, trace nedium sand, trace subrounded gravel, wet  SAND: 2.5Y 4/4 olive brown, fine grained, wet	25 -
- 180 -						,	SAND: 2.5Y 5/4 light olive brown, fine grained, wet	-
- - 185 - -							SAND: 2.5Y 5/4 light olive brown, coarse grained, little nedium sand, trace fine sand, trace subrounded to bunded gravel, wet  SAND: 2.5Y 4/4 olive brown, fine grained, loose, wet	15 -
- 190							SAND: 2.5Y 4/3 olive brown, coarse grained, trace nedium sand, trace fine sand, trace fine subangular to	10 -
- - - 195						_	SAND: 2.5Y 4/4 olive brown, fine grained, trace fine	5- -
- - - 200							SAND: 2.5Y 5/4 light olive brown, fine grained, wet  SAND: 2.5Y 5/4 light olive brown, coarse grained, little nedium sand, trace fine sand, trace subrounded to bounded gravel, wet  SAND: 2.5Y 4/4 olive brown, fine grained, loose, wet  SAND: 2.5Y 4/3 olive brown, coarse grained, trace nedium sand, trace fine subangular to bounded gravel, wet  SAND: 2.5Y 4/4 olive brown, fine grained, trace fine ubangular to rounded gravel, wet	0-



Proie	ect Name	e: J-2 RANG	iF			1/1 //	Location:		
-				20708.99. M2	: 4620	0709.0	4 Easting: D: 374574.33, M1: 374574.3	3. M2: 37457	4.33
			1011. 102				B. er fer flee, mill er fer fle		-
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205									-5 - - -
- 210 - 210 215						_	SAND: 2.5Y 4/4 olive brown, medium grained, trace fine sand, trace fine subangular to subrounded gravel, wet	Bentonile Seal	-10 - -10 - - - -15 -
- - - 220						_	SAND: 2.5Y 5/3 light olive brown, medium grained, trace fine sand, trace fine subrounded to rounded gravel, wet	- Moo Wg	-20 <del>-</del>
- 225 -						_	SAND: 2.5Y 5/3 light olive brown, medium grained, trace fine sand, trace fine subangular to rounded gravel, wet		-25 - - - - -30 -
- 230 -						_	SAND: 2.5Y 4/3 olive brown, medium grained, trace fine sand, loose, wet		-35 -
- - 235 -								nethu Soil	-40 -
- - 240 - -							SAND: 2.5Y 4/4 olive brown, fine grained, trace medium sand, wet	III-	-
- - 245 - -						_	SAND: 2.5Y 4/3 olive brown, fine grained, trace medium sand, wet		-45 - - -
- - 250 -							SAND: 2.5Y 4/4 olive brown, fine grained, trace medium sand, wet	Bentonie Seal	-50 - - - -
- - 255						_	SAND: 2.5Y 5/4 light olive brown, medium grained,		-55 - -



						: וטו	1,1,1,			
Proje	roject Name: J-2 RANGE							Location:		
Nort	hing: D:		′08.94, N	/l1: 462	0708.99, M	2: 4620	0709.0	D4 Easting: D: 374574.33, M1: 374574.33	, M2: 37457	'4.33
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	) SOS		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 260 - -								trace coarse sand, trace fine subangular to subrounded gravel, wet  SAND: 2.5Y 5/3 light olive brown, medium grained, trace fine sand, trace fine angular to subrounded gravel, wet	Sky coa	-60 - -60 - - -
- 265 -						GP		GRAVEL: various colors, angular to subrounded, wet		-
- - 270						SP	ØØ	SAND: 2.5Y 5/3 light olive brown, medium grained, some coarse subangular to rounded gravel, wet		-70 <del>-</del>
- 275								SAND: 2.5Y 4/4 olive brown, fine grained, wet		-75 -
- - - - 280								SAND: 2.5Y 4/3 olive brown, fine grained, wet  SAND: 2.5Y 4/4 olive brown, fine grained, wet		-80 -
- - - - 285								SAND. 2.31 4/4 dive blown, line grained, wet		-85 <del>-</del>
- - - 290										-90 -
- - - 295 -									Institution	-95 <b>-</b>
- 300								SAND: 2.5Y 5/3 light olive brown, fine grained, subrounded to rounded gravel, wet		-100 <del>-</del> -100 -
- 305										- -105 - -
- - -								SAND: 2.5Y 5/4 light olive brown, fine grained, subangular to subrounded gravel, wet		-110 - -110 -



Proje	ect Name	: J-2	RANGE			, ID.	1/1 //	Location:		
Nort	Northing: D: 4620708.94, M1: 4620708.99, M2: 46				0708.99, M2	2: 4620	709.0	4 Easting: D: 374574.33, M1: 374574.33,	M2: 37457	4.33
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	O/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class		Lithologic Description C	Well Construction Diagram	Elevation (ft msl)
- 31U - -								SAND: 2.5Y 5/3 light olive brown, fine grained, wet		- - - 115 –
- 315 - - - - - 320							_			120 -
- - - - 325								SAND: 2.5Y 4/4 olive brown, fine grained, subangular to rounded gravel, wet	-	- - 125 – -
- - - 330 -							_	SAND: 2.5Y 4/3 olive brown, fine grained, wet	-	130 -
- - 335 - -							_	SAND: 2.5Y 4/4 olive brown, fine grained, trace fine subangular to rounded gravel, wet		135 - - - 140 -
- 340 - - - - - 345								;	- I	- - - 145 -
- 345 - - - - 350						BR		BEDROCK		150 -
- - - 355								Notes: 1. Well Depths MW-340D: 340.14 ft (BGS) MW-340M1: 266.12 ft (BGS) MW-340M2: 225.38 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths	-	- 155 - - -
- - 360 -								3. Screen legits MW-340D: 10.00 ft MW-340M1: 10.00 ft MW-340M2: 9.25 ft 4. Screen Intervals MW-340D: 329.60 - 339.60 ft (BGS) MW-340M1: 255.85 - 265.85 ft (BGS) MW-340M2: 215.83 - 225.08 ft (BGS) 5. Slot Size 0.010 in.	-	160 - - - - -



Page 8 of 8

Proj	ect Name	e: J-2	2 RANGE				Location:	Location:			
Nort	hing: D:	4620	708.94, N	/11: 462	.0708.99, M2	: 4620	0709.04 Easting: D: 374574.33, M1: 374574.	33, M2: 37457	4.33		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)		
							6 Surface Elevation: 198 65 ft (MSL)		-165 –		

			LOC IL	<b>7.</b> 1/1 / /	V 12			
Project Name: J	-2 RANGE				Location:			
Northing: M1: 4	1617567.80, N	И2: 4617567.85, S	S: 4617567	'.90	Easting: M1: 374450.07, M2	2: 374450.07, 8	S: 374450.07	
Drilling Contracto	r: D. L. Mahe	er Co.	Elevation	ft (MSL): I	M1: 149.55, M2: 149.55,	S: 149.55 @	Top PVC	
Drilling Equipmen	nt: Dual Air Ro	otary	Well Deptl	h ft (BGS):	M1: 204.05, M2: 174.11	, S: 96.84		
Drilling Method:	Air-Rotary		BH Depth/	/Diam: 316	6.90 ft (BGS), 8.00 in.	First Water ft (BGS): 82		
Sampling Method	: Stainless S	Steel Bailer	Start/End	Date: 07/	09/04 - 07/27/04	Well Diameter (	(in.): 2.50	
Const. Materials	SCH 80 PV	/C	Project Nu	ımber: 35	AY5301	Static Water ft (BTOC): 78.52		
Logged by: L. Ba	aerga Re	viewed by: Larry F	Pannell, P	G C	completion: Flushmount	Date Measured	: 11/10/05	
Depth ft (BGS) Blow Counts Per 6 Inches Sample Interval	/Recovery Sample ID	Gamma CPS 20 45 Conductiv 2 6	Class 07		Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
-							M1 M2 S	- - -
-0 - -			OL SM	O di	RGANIC SILT: 10YR 4/3 brown, littl 'Y	e fine sand, roots,		150 -
- - -5			SP		AND: 10YR 5/4 yellowish brown, fine parse sand, little medium sand, little founded gravel, some silt, dry			145 -
- - -				SSSSSS lit	AND: 2.5Y 6/4 light yellowish brown tle coarse sand, little fine sand, some ubrounded gravel, dry	, medium grained, e fine angular to		-
- 10 - -			SM	- - -   lit	AND: 10YR 6/6 brownish yellow, me tle coarse sand, trace fine sand, som ubrounded gravel, little silt, dry			140 -
- 15 - 15							#1 WG	135 -
- 20			SP	co	AND: 2.5Y 7/4 pale yellow, medium parse sand, little fine sand, little fine sand, little fine abrounded gravel, dry			130 -
- 25 -								125 - -
- 30								120 -
- 35 								115 -
- 40 - 10								110 -



				LOC	<u></u>	W - 342	
Proj	ect Name	e: J-2 RANGE				Location:	
Nor	thing: M	1: 4617567.80, N	12: 4617	567.85, S: 461	17567.	Easting: M1: 374450.07, M2: 374450.07, S: 374450.07	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - 45 -						SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, dry	- 105 — - -
- 50 - -						SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine subangular to subrounded gravel, dry	100 -
- 55						In-situ Soil	95 - - - - 90 -
- 60 - - - - 65							85 -
- 70							80 -
- - - 75						SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, dry	- - - 75 –
- - - 80						SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, trace fine	70 -
- 85 -						subangular to subrounded gravel, damp	7 - 65 –
- - 90 -						SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little silt, wet	60 -
- - 95 -							55 -



Proje	ect Name	e: J-2 I	RANGE				Location:	
Nort	hing: M1		67.80, N	12: 4617	567.85, S: 46	17567.	.90 Easting: M1: 374450.07, M2: 374450.07, S: 374450.0	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	) SOSI	Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - - 100 - - - - 105 - -						SM	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine angular to subrounded gravel, little silt, wet	50 - 45 -
- 110 - - - - 115 - - - 120								35 - 30 -
- - - - 125 - -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, little silt, wet	25
- 130 - - - - 135 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little silt, wet  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, coarse grained sand, little medium sand, trace fine sand, some fine angular to subrounded gravel, little silt,	15
- - 140 - - - - - - 145								10 - 5-
-							SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, some silt, wet	



Proje	ect Name	: J-2 R	ANGE				171 77 -	Location:		
Nort	hing: M1	l: 461756	7.80, M	12: 4617	567.85, S: 46	17567.	90	Easting: M1: 374450.07, M2: 374450.07, S	: 374450.07	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - - - - - - - 155								SAND: 2.5Y 5/4 light olive brown, medium grained, race coarse sand, little fine sand, some silt, wet		0-
- 155 - - - 160 -								Bantonine Seal		-10 -
- - 165 - - - - - 170							- - -   (	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, some fine angular to		-15 <del>-</del>
- - 175 - - - - - - 180								subrounded gravel, little silt, wet		-25 - -30 -
- 180 - - - - 185								SAND: 2.5Y 5/4 light olive brown, medium grained, little soarse sand, trace fine sand, little silt, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, little		-35 -
- - - - 190								nedium sand, some silt, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, little		-40 -
- - - - 195 -								coarse sand, little fine sand, trace coarse angular to subrounded gravel, trace fine angular to subrounded gravel, some silt, trace clay, wet		-45 <del>-</del>
- - 200 - -								OW COM		-50 <del>-</del>

Proje	ect Name	: J-2 RANGE					Location:	
Nort	hing: M1	1: 4617567.80, M	2: 461756	67.85, S: 461	17567.	90	Easting: M1: 374450.07, M2: 374450.07, S: 374450.07	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class	а	Lithologic Description  nd Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - 205 -								- -55 - -
- 210 -						S tr	AND: 2.5Y 5/4 light olive brown, medium grained, ace coarse sand, little fine sand, little silt, wet	-60 -
- - 215 - -								-65 - - - -
- 220 - - - - - 225					SP	S tr	AND: 2.5Y 6/4 light yellowish brown, medium grained, ace coarse sand, trace fine sand, wet	-70 - - - - -75 -
- 230						9	AND: 2.5Y 6/4 light yellowish brown, fine grained,	-80 -
- - - 235						S	ome medium sand, trace silt, wet	-85 -
- 240 -								-90 - -
- - 245 -								-95 - -95 -
- 250 					SM	S S S S S S S S S S S S S S S S S S S	ILT: 2.5Y 6/4 light yellowish brown, some fine grained and, wet	-100 - -100 - -
- - 255 -								-105 <del>-</del>



								<u>'</u>	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma I CPS Conducti 2 6	USCS Class		p	Well Construction Diagram
260								SANDY SILT: 5Y 5/3 olive, some fine sand, little medium sand, wet	-
:65						CL		CLAY: 5Y 5/3 olive, little silt, trace fine sand, wet	-
70						SC SM		SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, some silt, little clay, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, wet	-
75									-
80								SILT: 2.5Y 5/4 light olive brown, some fine grained sand, wet	-
85									-
90							_	SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, wet	-
95									-
00						SMSC		SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, little clay, wet	-
05									-

Proje	ct Name	e: J-2	RANGE					Location:		
Nortl	ning: M1	l: 4617	7567.80, M	12: 4617	567.85, S: 4	1617567.	.90	Easting: M1: 374450.07, M2: 374450.07,	S: 374450.07	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Lo CPS Conductivi 2 6	ျွတ္		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - 315 - 320 - 325						SM GP BR		SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, wet  GRAVEL: multicolored fine angular to subrounded gravel, little coarse angular to subrounded gravel, little coarse sand, little medium sand, little silt, wet. Gravel composed of multiple lithologies and mineralogy  BEDROCK: Represented by fine angular gravle composed of black crystalline rock. Multiple lithologies above replaced by singular lighology: quartz diorite/granite.  Notes:  1. Well Depths  MW-342M1: 204.05 ft (BGS)  MW-342M2: 174.11 ft (BGS)  MW-342M2: 174.11 ft (BGS)  MW-342M2: 10.00 ft  MW-342M2: 10.00 ft	-	.100 -
- 330								MW-342M1: 193.73 - 203.73 ft (BGS) MW-342M2: 163.80 - 173.80 ft (BGS) MW-342S: 86.31 - 96.31 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 149.93 ft (MSL)	-	-180 -

			RANGE						Location:			
			0599.26,		0599.31				Easting: M1: 374850.89, M	2: 374850.89		
Drillir	ng Contra	actor:	D. L. Mah	er Co.		EI	evation	ft (MSL	.): M1: 185.74, M2: 185.74	@ Top PVC		
Drillir	ng Equip	ment: [	Dual Air F	Rotary		W	ell Dept	h ft (BC	GS): M1: 321.81, M2: 246.93	3		
Drillir	ng Metho	d: Aiı	r-Rotary			ВІ	H Depth	/Diam:	356.73 ft (BGS), 8.00 in.	First Water ft (B	GS): 125	
Sam	pling Met	thod: S	Stainless	Steel Ba	ailer	St	art/End	Date:	08/04/04 - 08/27/04	Well Diameter (	(in.): 2.50	
Cons	st. Materi	als S	SCH 80 P	VC		Pı	oject Nu	ımber:	35AY5301	Static Water ft (	BTOC): 126.	30
Logg	ed by: L	. Baeı	rga R	eviewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 06/16/05	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	C 20 4 Condu	ma Log PS 45 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic	Symbol	Well Construction Diagram	Elevation (ft msl)
- -											M1 M2	-
-0							OL	<del> </del>	ORGANIC SILT: 10YR 4/4 dark yello			185 -
-							SP		fine sand, trace coarse sand, trace find dry	e angular gravel,		-
- -5 -									SAND: 10Y 6/4 light yellowish brown trace coarse sand, little fine sand, sor gravel, dry	medium grained, ne fine angular	000000000000000000000000000000000000000	- - 180 – -
- - 10 - - -									SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, little fine sand, sor	ı, medium grained, ne fine gravel, dry	-	- 175 - - -
- 15 - - - - - 20											000000000000000000000000000000000000000	- 170 - - - -
- - - - 25									SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine sand, tra angular gravel, dry			165 - - - - 160 -
- - - 30									SAND: 2.5Y 6/4 light yellowish browr trace coarse sand, trace fine sand, tra			160 - - - - 155 -

Proj	ect Name	: J-2 RAN(	 BE				Location:		
-		1: 4620599.26		0599.31			Easting: M1: 374850.89, M2: 374850.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 35 - -							gravel, dry	#2 WG	150 -
- 40					sw		GRAVELLY SAND: 2.Y 6/4 light yellowish brown, medium grained sand, little coarse sand, trace fine sand, some fine angular to subrounded gravel, little coarse gravel, dry	- 1000000000000000000000000000000000000	145 -
- 45 - - - - 50							GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, little coarse sand, trace fine sand, some fine angular to subrounded gravel, little coarse gravel, dry		140 -
-					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, little fine angular to subrounded gravel, dry		135 -
- 55 - - -								000000000000000000000000000000000000000	130 -
- 60 - -								300000000000000000000000000000000000000	125 -
- 65 - -								200000000000000000000000000000000000000	120 -
- 70 -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, little fine angular to		115 -



Droi	ect Name	a. 10	RANGE				171 77	Location:		
			599.26, M	2: 4620	500.31			Easting: M1: 374850.89, M2: 374850.89		-
			599.26, IVI	2. 4020	599.51			Easung. W1. 374650.69, W2. 374650.69		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 75								subangular gravel, trace silt dry		-
- 80										110 -
- - - 85										100 -
- - - 90 -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine angular to subangular gravel, trace silt, dry		95 -
- - 95 -										90 -
- 100 -										- 85 – -
- 105 -										80 -
- - 110 -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine angular to subrounded gravel, trace silt, damp		75 -

Proje	ect Name	e: J-2	RANGE				Location:		
			599.26, M	12: 4620	599.31		Easting: M1: 374850.89, M2: 374850.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construct Diagram	9
- 115 120							SAND: 2.5Y 6/4 light yellowish brown, medium grained,		70 -
- 125 - 130							little coarse sand, little fine sand, little fine angular to subrounded gravel, trace silt, wet		▼ 60 -
- 135							SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, wet		55 -
- 140 - - - - 145							SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, wet		45 -
- - 150 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace silt, wet	altu Soil	35 -



Proje	ect Name	≕ J-2 R	ANGE					Location:		
Nort	hing: M1	l: 462059	9.26, M	2: 4620	599.31			Easting: M1: 374850.89, M2: 374850.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 155 - -								SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, some fine angular to subrounded gravel, trace silt, wet		30 -
- 160 -								SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sand, little fine angular to subrounded gravel, little coarse angular to subrounded gravel, wet		25 -
- 165 -										20 -
- 170 - - -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine angular to subrounded gravel, trace silt, wet		- 15 - - -
- 175 -										10 -
- 180 - - - - 185								SAND: 2.5Y 4/3 olive brown, medium grained, trace coarse sand, little fine sand, trace silt, wet		5-
- - - 190							_	SAND: 2.5Y 5/4 light olive brown, fine grained, trace to		0-
ŀ								little coarse sand, little medium sand, little coarse angular to subangular gravel, trace silt, wet		-5-

Proje	ect Name	e: J-2	RANGE				Location:		
-			599.26, M	2: 4620	599.31		Easting: M1: 374850.89, M2: 374850.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 195							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, little fine sand, little coarse angular to subangular gravel, trace silt, wet		-10 - -
- 200 - - - - 205							SAND: 2.5Y 7/6 yellow, medium grained, little coarse sand, trace to little fine sand, trace to little coarse subangular gravel, trace to little fine subangular gravel, trace silt, wet		-15 - - - -
- - - 210						SPSM	SAND: 2.5Y 7/6 yellow, coarse grained, little medium sand, trace to little fine sand, trace to little coarse subangular gravel, trace to little fine subangular gravel, trace silt, wet		-20 - - - -
- 215 						. C. Gril	SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, trace to little silt, wet		-25 - - - -30 -
- 220 - - - - - 225						SM	SAND: 2.5Y 6/4 light yellowish brown, fine grained, some silt, trace clay, wet		-35 -
- - - 230							SAND: 2.5Y 5/3 light olive brown, fine grained, some silt, trace clay, wet		-40 - - - -45 -

Droi	oot Name	e: J-2 RAI	NOF		LOC		IVI VV -	Location:		
<b>—</b>		1: 4620599.		4620F	500 31			Easting: M1: 374850.89, M2: 374850.89		
			20, 1012.	+0200				Easing. W1. 374630.69, W2. 374630.69		- <del>-</del>
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval		PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 235 								SAND: 2.5Y 5/4 light olive brown, fine grained sand, some silt, wet	Bentonite So	-50 - -55 -
- - 245 - - - -								some siit, wet	DWA OOF	-60 -
- - - - 255 -								SAND: 2.5Y 5/4 light olive brown, fine grained, little silt, wet		-65 - - - - -70 -
- 260 - - - - - 265								SAND: 2.5Y 5/4 light olive brown, fine grained, little silt, wet		-75 - - - - - -80 -
- - - 270 -										-85 -

Proje	ect Name	e: J-2 l	RANGE				Location:		
Nort	hing: M	1: 46205	599.26, M	12: 4620	599.31		Easting: M1: 374850.89, M2: 374850.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Litatologio Bosonpasti	Well enstruction Diagram	Elevation (ft msl)
- - - 275 -						SW	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, little fine sand, little coarse angular to subrounded gravel, little fine angular to subrounded gravel, little silt, wet		-90 -
- - 280						SM	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, little fine sand, trace fine angular to subrounded gravel, little silt, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, little fine sand, little silt, wet		-95 -
- - 285 - -							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, little fine sand, little fina angular to subrounded gravel, little silt, wet	-	-100 -
- 290 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine angular to subrounded gravel, little silt, wet	-	-105 -
- 295 -								-	-110 -
- 300							SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, little medium sand, little silt, wet	-	-115 - -
- 305 -							entonite Seal	-	-120 -
- 310 -								-	- - -125 –

Dra!	not Nicro		ANOF				Location:	$\overline{}$
		9: J-2 R					Location:	
Nort	hing: M1	1: 462059	9.26, M	2: 4620	599.31		Easting: M1: 374850.89, M2: 374850.89	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - 315 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine angular to subrounded gravel, little silt, wet	30 -
- 320 - -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine angular to subrounded gravel, little silt, wet	35 -
- - 325 - - -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, little silt, wet	40 - -
- 330 - - -							-14	45 - - -
- 335 - - -							-18	50 - - -
- 340 - - -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, little silt, wet  -15  SAND: 10YR 4/4 dark yellowish brown, medium	55 - - -
- 345 - - -							SAND: 10 TR 4/4 dark yellowish brown, medium grained, little coarse sand, little fine sand, little silt, wet  SAND: 10 YR 4/4 dark yellowish brown, medium grained, little coarse sand, little fine sand, trace coarse angular to subrounded gravel, trace fine angular to	60 -
- 350 -						SW	angular to subrounded gravel, trace fine angular to subrounded gravel, little silt, wet  SANDY GRAVEL; 2.5Y 5/4 light olive brown, angular to	65 -



Proje	ect Name	: J-2	2 RANGE					Location:		
North	ning: M1	: 462	0599.26, N	12: 4620	599.31			Easting: M1: 374850.89, M2: 374850.89		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	USCS C	8	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 355 -						BR		subrounded fine gravel (multi-colored and composed of multiple lithologies), little coarse gravel, little coarse sand, some medium sand, trace fine sand, little silt, wet BEDROCK: angular fine gravel composed of pink and black granitic rock; no subrounded grains or other ithologies		- - - - - -
- - - 360 - -								Notes: 1. Well Depths MW-345M1: 321.81 ft (BGS) MW-345M2: 246.93 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-345M1: 10.00 ft MW-345M1: 10.00 ft	-	- - -175 – -
- - 365 - -								MW-345M2: 10.00 ft 4. Screen Intervals MW-345M1: 311.50 - 321.50 ft (BGS) MW-345M2: 236.62 - 246.62 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 185.85 ft (MSL)	-	-180 – -180 –

								-	T			
			RANGE						Location:			
North	ning: M	1: 461	9285.69, 1	M2: 461	9285.74, I	PZ: 4 →	61928	5.79	Easting: M1: 374192.17, M2	2: 374192.17, F	PZ: 374192.	17
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	vation f	t (MSL	): M1: 180.53, M2: 180.53,	PZ: 180.53 @	Top PVC	
Drillir	ng Equip	ment: F	Rotosonic	Drill		We	ell Depth	nft (BG	is): M1: 298.77, M2: 216.85	, PZ: 124.16		
Drillir	ng Metho	d: Ro	tosonic D	rill		ВН	Depth/	Diam: (	350.00 ft (BGS), 6.00 in.	First Water ft (B	BGS): 115	
Sam	oling Met	thod: S	Submersib	ole Pum	р	Sta	rt/End [	Date: (	08/25/04 - 09/17/04	Well Diameter (	(in.): 2.50	
Cons	t. Materi	als S	CH 80 P	VC		Pro	ject Nu	mber:	35AY5301	Static Water ft (	BTOC): 109	.62
Logg	ed by: L.	. Baer	ga Re	eviewed b	y: Larry	Panr	nell, P	G	Completion: Flushmount	Date Measured	: 09/27/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conducti 2 6	70	USCS Class		Lithologic Description and Associated Lithographic	Symbol	Well Constructio Diagram	Elevation (ft msl)
											M1 M2 PZ	
-0 - -									VOID: No sample collected due to ha UXO clearance	nd augering for		180 – - -
- -5 -							SP		SAND: 2.5Y 5/6 light olive brown, me coarse sand, some fine sand, trace fin subrounded gravel, cobbles, dry			- - 175 –
- - -									SAND: 2.5Y 7/4 pale yellow, medium coarse sand, trace fine sand, trace co subrounded gravel, trace fine angular gravel, trace subrounded cobbles, trace	arse angular to to subrounded		-
- 10 - -									SAND: 10YR 6/4 light yellowish brow grained, trace to little coarse sand, tra coarse subangular to subrounded gravel, cob subangular to subrounded gravel, cob	ce fine sand, little vel, trace fine		170 – - -
- - 15 -									GRAVELLY SAND: 2.5Y 6/4 light yell medium grained, trace coarse sand, li some coarse subangular to subrounde subangular to subrounded gravel, little	ttle fine sand, ed gravel, little fine		- 165 – -
- 20									SAND: 2.5Y 7/4 pale yellow, medium little coarse sand, trace fine sand, trace SAND: 2.5Y 6/4 light yellowish brown	e silt, dry		-
-									little coarse sand, trace fine sand, little to subrounded gravel, little fine angula gravel, little silt, cobbles, dry	coarse angular		160 – - -
- - 25 -							SWSM		GRAVELLY SAND: 2.5Y 6/3 light yell medium grained sand, little coarse sal little coarse subangular to subrounded	nd, little fine sand,		- 155 – -
- - 30									subangular to subrounded gravel, little			- - 150 –
- - - 35							SM		SAND: 2.5Y 7/4 pale yellow, medium coarse sand, little fine sand, little coar subrounded gravel, little fine subangul gravel, some silt, dry	se subangular to		- - 145 -
- - -							SP		SAND: 2.5Y 7/6 yellow, medium grain sand, little fine subangular to subround			- - - -



Proje	ect Name	: J-2 RANG	 iE				Location:		$\neg$
Nort	hing: M1	1: 4619285.69	M2: 4619	)285.74, PZ: 40	619285	5.79	Easting: M1: 374192.17, M2: 374192.17,	PZ: 374192.1	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	-	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 40 -					SWSM		GRAVELLY SAND: 2.5Y 6/3 light yellowish brown, medium grained sand, little coarse sand, little fine sand, some fine subangular to subrounded gravel, little silt, dry		140 -
- 45 - - - - 50 -					GP		GRAVELLY SAND: 2.5Y 6/3 light yellowish brown, medium grained sand, little coarse sand, little fine sand, some fine subangular to subrounded gravel, little coarse subangular to subrounded gravel, cobbles, dry		135 -
- 55 - - - - 60					SM		SAND: 2.5Y 5/3 light olive brown, medium grained, trace coarse sand, some fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, little silt, cobbles, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace fine subangular to subrounded gravel, trace silt, dry		125 -
- - - 65 -							GRAVELLY SAND: 2.5Y 5/3 light olive brown, fine grained sand, trace coarse sand, little medium sand, trace coarse subangular to subrounded gravel, some subangular to subrounded gravel, little silt, dry		115 -
- - 70						' 	No sample, no recovery.		110 -
- 75 -					SM		SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, little silt, dry  SAND: 2.5Y 5/3 light olive brown, fine grained, trace coarse sand, little medium sand, little fine subangular to subrounded gravel, some silt, dry		105 -
- 80 -					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, some fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, little silt, dry  No sample, no recovery.		100 -
- - 85 - -					SM		SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse.		95 - - - -

Proj	ect Name	: J-2 RAN	GE				Location:			
Nor	thing: M1	l: 4619285.69	), M2: 4619	9285.74, PZ: 4	61928	5.79	Easting: M1: 374192.17, M2: 374192.17,	PZ: 37	4192.1	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	;	Lithologic Description and Associated Lithographic Symbol		/ell ruction gram	Elevation (ft msl)
- 90 - - - - - 95 - - - - - 100							coarse sand, little fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, trace cobbles, trace silt, dry  SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, little silt, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, trace cobles, trace to little silt, dry  SANDY SILT: 2.5Y 5/4 light olive brown, some fine grained sand, trace coarse sand, little medium sand, trace coarse subangular to subrounded gravel, trace to little fine subangular to subrounded gravel, trace to little fine subangular to subrounded gravel, trace cobbles, dry	£2 WG		90 - - - - - 85 - - - - 80 -
- - - 105 - - - - 110					SM		SAND: 2.5Y 7/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, trace silt, dry  No sample, no recovery.  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, some fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, little silt, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace fine subangular to subrounded gravel, little silt, dry			75 - - - - - - - - 70 -
- - 115 - - - - -					SP		SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, trace fine subangular to subrounded gravel, little silt, damp  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, some fine sand, trace fine subangular to subrounded gravel, trace silt, wet	_	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- - - - - - - - - - - - - - - -
- - - 125 - -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace coarse subrounded gravel, trace fine subangular to subrounded gravel, wet	_		- - - 55 – - -
- 130 - - - - 135					SP	1	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular to subrounded gravel, trace silt, wet			50 - 50 - - - - 45 -



Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M1	1: 4619285.69, M	2: 4619	285.74, PZ: 46	619285	5.79	Easting: M1: 374192.17, M2: 374192.17,	PZ: 374192.17	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 140 -									40 -
- - 145 -									35 -
- - 150 -									30 -
- 155 							SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, little fine sand, trace silt, wet. Occasional layers containing additional fine sand and trace to little silt.	-	25 - -
- 160 -									20 -
- 165 -									15 -
- 170 -									10 -
- 175 -					SM ML		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, little silt, wet  SILT: 2.5Y 6/3 light yellowish brown, some fine sand, wet	_	5- - -
- - 180 -					SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, little silt, wet  CLAYEY SILT: 10YR 6/6 brownish yellow, little clay,		0-
- - 185 -					ML CL		damp  CLAY: 5Y 5/2 olive gray, some silt, little fine sand, damp		-5 - -



Proie	ect Name	: J-2 RANGI	<u> </u>			171 77	Location:		$\overline{}$
		1: 4619285.69,		285.74. P <i>7</i> : 4	61928	5.79	Easting: M1: 374192.17, M2: 374192.17,	PZ: 374192.1	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id		Gamma Log CPS	USCS Class		Lithologic Description	Well Construction	Elevation (ft msl)
Dept	Blow Per (	Sam /Recc Sam	PID/FID	Conductivity 2 6 10	Š		and Associated Lithographic Symbol	Diagram	Eleva
- - 190 - -							No sample, no recovery.		-10 <del>-</del>
- 195 - - - - 200					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, little fine subangular to subrounded gravel, trace silt, wet		-15 - - -
- - - 205						-	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, little silt, wet	Bentonite Seal	-20 - - - - -25 -
- 210 -							No sample, no recovery.	5W 000	-30 -
- - 215 -					SM		SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, some silt, wet		-35 -
- - 220 -							SAND: 2.5Y 6/6 olive yellow, medium grained, trace coarse sand, some fine sand, trace fine subangular to subrounded gravel, trace cobbles, little silt, wet		-40 -
- 225 -							No sample, no recovery.		-45 <b>-</b>
- 230 - 230					SP		SAND: 10YR 5/6 yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular to subrounded gravel, wet  No sample, no recovery.		-50 -
- - 235 -					SP		SAND: 2.5Y 6/6 olive yellow grading to 2.5Y light yellowish brown, medium grained, trace coarse sand, trace to little fine sand, trace to little fine gravel, trace to little silt, wet		-55 —

Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M1	1: 4619285.69, M	I2: 4619	285.74, PZ: 46	61928	5.79	Easting: M1: 374192.17, M2: 374192.17, I	PZ: 374192.1	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 240 -					014				-60 <del>-</del>
- - 245 - - -					SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little silt, trace coarse subrounded gravel, wet		-65 -
- 250 - - -							No sample, no recovery.	In-situ Soil	-70 <del>-</del>
- 255 - - -					SPSM	1888H I H	SAND: 2.5Y 7/4 pale yellow grading to 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace fine gravel, trace silt, wet		-75 - -75 -
- 260 - -									-80 <del>-</del>
- 265 -									-85 <b>-</b>
- 270 -							No sample, no recovery.		-90 <del>-</del>
- - 275 - -					SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace to little silt, damp		-95 <del>-</del>
- 280 -									-100 - -
- - 285 -								Bentonite Seal	-105 <del>-</del>

Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M	1: 46192	285.69, M	12: 4619	285.74, PZ: 4	61928	5.79	Easting: M1: 374192.17, M2: 374192.17,	PZ: 374192.1	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 290 - -										-110 -
- - 295 - -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, some silt, damp, faint layering	BN OF	-115 <del>-</del>
- - 300 - -						ML		SILT: 2.5Y 6/6 olive yellow, little fine sand, faint laminations, damp		-120 <b>-</b>
- 305 -							_	SANDY SILT: 2.5Y 5/6 light olive brown, fine grained sand, damp, laminated		-125 - -
- - 310 - -									Bentonite Se	-130 <del>-</del>
- - 315 - -										-135 <del>-</del>
- 320 -								SILT: 2.5Y 4/3 olive brown, little fine sand, trace to little clay, damp, laminated with occasional seams of gray fine sand		-140 - -
- - 325 -								SILT: 2.5Y 6/4 light yellowish brown, little fine sand, trace to little clay, damp, laminated		-145 -
- - - 330						ML		No sample, no recovery.  SILT: 5Y 5/1, 5/2, 5/3 gray, olive gray, olive, little fine sand, little clay, damp, faint laminations	In-situ Sol	-150 -
- - - 335 -						SM		SAND: 2.5Y 5/6 light olive brown to 10YR 5/4 yellowish brown, fine grained, little coarse sand, little medium sand, little coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, cobbles, some silt, wet		-155 -

Proj	ect Name	e: J-2	RANGE					Location:		
Nor	thing: M	1: 4619	9285.69, M	2: 4619	285.74, PZ: 4	619285	5.79	Easting: M1: 374192.17, M2: 374192.17,	PZ: 374192.17	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 340 - - - 345 - - - 350						BR		BEDROCK: Pink, gray granite	aftu S. Bentonite Seal	-160 - 
ŀ									-	-170 -
- 355 360 360								Notes: 1. Well Depths MW-348M1: 298.77 ft (BGS) MW-348M2: 216.85 ft (BGS) MW-348PZ: 124.16 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-348M2: 10.00 ft MW-348M2: 10.00 ft MW-348PZ: 10.00 ft 4. Screen Intervals MW-348PX: 10.00 ft 4. Screen Intervals MW-348M1: 288.46 - 298.46 ft (BGS) MW-348M2: 206.54 - 216.54 ft (BGS) MW-348PZ: 114.16 - 124.16 ft (BGS) 5. Slot Size 0.010 in.		

Proje	ct Name	: J-2	RANGE						Location:			
<u> </u>			18926.80,	M2: 4	618926	.85			Easting: M1: 374912.64, I	M2: 374912.64	4	
Drillin	ng Contra	actor:	D. L. Mah	er Co.		EI	levation 1	t (MSL):	M1: 160.22, M2: 160.22 @	① Top PVC		
Drillir	ng Equip	ment: [	Dual Air R	otary		W	ell Depth	n ft (BGS)	: M1: 289.04, M2: 244.07			
Drillir	ng Metho	d: Aiı	r-Rotary			ВІ	H Depth/	Diam: 33	31.00 ft (BGS), 8.00 in. First Water ft (I		BGS): 110	
Sam	oling Met	thod: S	Stainless S	Steel Ba	ailer	St	art/End I	Date: 09/	/15/04 - 10/06/04 Well Diameter (in.)		in.): 2.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pı	roject Nu	mber: 35	AY5301	Static Water ft (	BTOC): 90.7	5
Logg	ed by: S	. Mixa	an Re	viewed b	y: Larr	y Pan	nell, P	G C	Completion: Flushmount	Date Measured:	03/27/06	
Depth ft (BGS)	ow Counts ample Intervecovery Sample ID Sample					na Log PS 5 70 ctivity 6 10	SCS Class		Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
- - - -0 -							SM		AND: 2.5Y 6/4 light yellowish brown ace to little coarse sand, trace mediu		M1 M2	160 -
- -5 - - - -									tle subangular fine gravels, some silt			155 - - - - - - - - - - - -
- 15 - 15									AND: 2.5Y 7/4 pale yellow, fine grain nedium sand, some silt, dry	ned, some		- - - - 145 - -
- - 20 -							GP SM	S	RAVEL: 2.5Y 6/3 light yellowish broubangular fine and coarse gravel, tra	ce silt, dry		140 - -
- - - 25 -							SIVI		ILTY SAND: 2.5Y 6/3 light yellowish rained sand, trace medium sand, silts			135 –
- - 30 -											#2WG	130 -
- - 35 -							GP		DAVEL OF VOICE-LE	un oub		125 -
- - - 40									RAVEL: 2.5Y 6/3 light yellowish brome gravel, trace subangular coarse groarse sand, trace medium sand, trace and, trace to little silt, dry	ravel, trace e to little fine		120 -
-							SP		AND: 2.5Y 6/2 light brownish gray, n ttle coarse sand, some fine sand, trac			]

Proje	ect Name	: J-2 I	RANGE					Location:		
Nort	hing: M	1: 4618	926.80,	M2: 46	18926.85			Easting: M1: 374912.64, M2: 374912.6	64	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 45 -									300000000000000000000000000000000000000	115 -
- - 50 -								SAND: 2.5Y 7/3 pale yellow, fine grained, trace coarse sand, trace medium sand, trace silt, dry	200000000000000000000000000000000000000	110 -
- - 55 - - -										105 -
- 60 - - -							_	SAND: 2 5V 7/3 nale vellow fine grained trace coarse		100 -
- 65 - - - 70								SAND: 2.5Y 7/3 pale yellow, fine grained, trace coarse sand, little medium sand, little silt, dry		90 -
- - - 75 -								CAND. 2 FV 0/0 relevaling fine regions have access		- - 85 – -
- - - 80 - -								SAND: 2.5Y 8/3 pale yellow, fine grained, trace coarse sand, little medium sand, trace to little silt, dry		80 -
- 85 -										75 -
- - 90 - - -							_	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, some fine sand, trace silt, dry	<b>T</b>	-
- 95 -										65 <b>-</b>

Proje	ect Name	: J-2	RANGE					Location:		
-				M2: 46	18926.85			Easting: M1: 374912.64, M2: 374912.	64	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 100 - -								SAND: 2.5Y 6/3 light yellowish brown, medium grained, little coarse sand, some fine sand, trace fine subrounded gravel, trace silt, dry		60 -
- 105 - - - - 110								GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, some coarse sand, fine subangular gravel, trace silt, wet	-	50 -
- 115 - 120								SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace to little fine sand, trace subrounded fine gravel, trace silt, wet		45 - - - - - - 40 -
- 125 -							_	SAND: 2.5Y 5/3 light yellowish brown, fine grained, trace to little medium sand, little silt, wet		- - 35 – -
- - 130 -							_			30 <del>-</del> -
- - 135 - -								SAND: 2.5Y 7/3 pale yellow, medium grained, some coarse sand, little fine sand, trace subrounded fine gravel, trace silt, wet		- 25 - - -
- - 140 - -								SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace silt, wet	In-situ Soli	20 – - - -
- - 145 - - -										15 - - - -



Proje	ect Name	: J-2 RANGE				l	Location:		
		1: 4618926.80,	M2: 46	18926.85		E	Easting: M1: 374912.64, M2: 374912.6	 64	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	an	Lithologic Description nd Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 -						SA littl	AND: 2.5Y 5/4 light olive brown, fine grained, trace to le coarse sand, some medium sand, little silt, wet		10 -
- 155 - - - - 160									5-
- - 165 -					SM	SIL	LTY SAND: 2.5Y 5/4 light olive brown, fine grained, le medium sand, silts, wet		-5 - -5 -
- 170 - - - - 175						trad	AND: 2.5Y 6/4 light yellowish brown, fine grained, ice to little coarse sand, little medium sand, trace bangular fine gravel, some silt, wet		-10 - - - -15 -
- - 180 -									-20 -
- 185 - - - - - 190									-25 <del>-</del>
- - - - 195						·   ·   ·   little	AND: 2.5Y 5/4 light olive brown, fine grained, trace to le coarse sand, little medium sand, trace subrounded e gravel, some silt, wet		-35 -
- 200 -									-40 <del>-</del>



						IVI VV			$\neg$
		: J-2 RANG					Location:		
Nort	hing: M	1: 4618926.80	, M2: 46	618926.85			Easting: M1: 374912.64, M2: 374912.	64	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 205 210 - 210 - 215							SAND: 2.5Y 6/3 light yellowish brown, fine grained sand, trace to little medium sand, little silt, wet SILTY SAND: 2.5Y 5/4 light olive brown, fine grained, race coarse sand, little medium sand, silts, wet		-45 - - -50 - - -55 -
- 220 - 220 225					SP		SAND: 2.5Y 6/3 light yellowish brown, medium grained, ittle coarse sand, some fine sand, trace silt, wet		-60 - -60 - - - -65 -
- - - 230 - - - - - - 235							SAND: 2.5Y 6/4 light yellowish brown, medium grained, race coarse sand, some fine sand, trace silt, wet	Bentonie Sea	-70 - -75 -
- 240 							SAND: 2.5Y 7/3 pale yellow, medium grained, little fine sand, trace fine subrounded gravel, trace silt, wet	No one	-80 -
- 245 - - - - - 250 -								1	-85 - - - -90 -
- - 255 -									-95 <del>-</del>



						1V1 VV -			
Proj	ect Name	e: J-2 RANGE					Location:		
Nor	thing: M	1: 4618926.80,	M2: 46	18926.85			Easting: M1: 374912.64, M2: 374912.6	64	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 260					GP SP		GRAVEL: 2.5Y 7/4 pale yellow, fine subrounded gravel, trace coarse gravel, trace coarse sand, trace medium sand, trace fine sand, trace silt, wet	25 WG	-100 -
- - 265 -					Gi		SAND: 2.5Y 6/4 pale yellow, fine grained, trace coarse sand, trace to little medium sand, little fine gravel, trace silt, wet		-105 -
- - 270 -						_	SAND: 2 EV 4/2 light valleurish brown fine grained	- 13	-110 - -1 -
- - 275 -							SAND: 2.5Y 4/3 light yellowish brown, fine grained, trace to little coarse sand, little medium sand, trace subangular fine gravel, trace silt, wet	Bentonite Seal	-115 - -
- 280 -									-120 <del>-</del>
- - 285 - -								EM 00#	-125 - -
- 290 -							SAND: 2.5Y 6/3 light yellowish brown, fine grained, trace to little coarse sand, some medium sand, trace subangular fine gravel, trace silt, wet	_	-130 -
- 295 -									-135 - - -
- 300									-140 <b>-</b>
- 305 - -							GRAVELLY SAND: 2.5Y 6/3 light yellowish brown, fine and medium grained sand, trace coarse sand, fine subrounded gravels, wet		-145 -

Proje	ect Name	e: J-2	RANGE					Location:		
Norti	hing: M	1: 461	8926.80,	M2: 46	318926.85			Easting: M1: 374912.64, M2: 374912.0	64	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	:	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310 - - - - - 315							1	SAND: 2.5Y 6/3 light yellowish brown, coarse grained, little medium sand, trace fine sand, subangular to subrounded fine gravels, wet	In-eltu Soil	- - - -155 —
- - - 320 -										- - -160 – -
- - 325 - -						SM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, little silt, wet		- -165 - - - - -
- 330 - - -						BR	\(\lambda \cdot \lambda \)	BEDROCK: Granite bedrock encountered		-170 - - - -
- 335 - - -								Notes: 1. Well Depths MW-351M1: 289.04 ft (BGS) MW-351M2: 244.07 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW 351M1: 10.00 ft		-175 - - - -
- 340 - - - - 345								MW-351M1: 10.00 ft MW-351M2: 10.00 ft 4. Screen Intervals MW-351M1: 278.64 - 288.64 ft (BGS) MW-351M2: 233.67 - 243.67 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 159.83 ft (MSL)		-180 - - - - -185 -

			, IVI				
Project Name: J-2 RANGE				Location: Coast Guard Co		eenway Road	MMR
Northing: M1: 4618674.05, M2: 4618674	1.10			Easting: M1: 375115.62, M3	2: 375115.62		
Drilling Contractor: D. L. Maher Co.		Elevation f	t (MSL)	: M1: 175.04, M2: 175.04 (	@ Top PVC		
Drilling Equipment: Rotosonic Drill	,	Well Depth	ft (BG	S): M1: 284.82, M2: 245.12			
Drilling Method: Rotosonic Drill	I	BH Depth/	Diam: 3	40.25 ft (BGS), 6.00 in.	First Water ft (B	First Water ft (BGS): 108.5	
Sampling Method: Submersible Pump	(	Start/End [	Date: 0	9/20/04 - 10/04/04	Well Diameter (	in.): 2.50	
Const. Materials SCH 80 PVC	ı	Project Nu	mber: 3	35AY5301	Static Water ft (	BTOC): 102.9	5
Logged by: D. Melcher Reviewed by: L	arry Pa	annell, P	G	Completion: Flushmount	Date Measured:	: 10/05/06	
t (BGS ounts nothes nothes a lintervery ery	onductivity	Class		Lithologic Description and Associated Lithographic s	Symbol	Well Construction Diagram	Elevation (ft msl)
						M1 M2	175 –
-0 - - - -5		SM		SILTY SAND: 10YR 5/4 yellowish brosand, trace coarse sand, trace mediur rounded cobbles, trace coarse rounde fine rounded gravel, trace organics, dr SAND: 10YR 5/4 yellowish brown, fin medium sand, trace coarse sand, trace subrounded gravel, trace fine rounded dry  GRAVELLY SAND: 10YR 5/4 yellowish sand, trace gravel little coarse and little page 10 yellowish sand little coarse and little page 11 yellowish sand little coarse and little page 12 yellowish sand little coarse and little page 13 yellowish sand little coarse and little page 14 yellowish sand little coarse and little page 15 yellowish sand	m sand, trace d gravel, trace y e grained, some e coarse d gravel, trace silt, sh brown, some		175 -
- 10 - 10				medium sand, little coarse sand, little coarse subrounded to rounded gravel subrounded to well rounded gravel, tracobbles, trace silt, dry  GRAVELLY SAND: 10YR 5/4 yellowimedium sand, some coarse sand, tracoarse subrounded to rounded gravel, subrounded to rounded gravel, trace scobbles, trace silt, dry  GRAVELLY SAND: 2.5Y 6/3 light yell some medium sand, little coarse sand some coarse subrounded to rounded subroudned to rounded gravel, trace scobbles, trace silt, dry	sh brown, some ce fine sand, little fine subangular lowish brown, l, little fine sand, gravel, little fine	50000000000000000000000000000000000000	165 -
- 15 - 15				GRAVELLY SAND: 2.5Y 6/3 light yell some medium sand, little coarse sand some coarse subroudned to rounded subrounded to rounded gravel, trace so SAND: 10YR 5/4 yellowish brown, so little fine sand, trace to little coarse sa subrounded cobbles, little coarse subrounded gravel, trace to little fine subrounded gravel, trace to little fine subrounded gravel, trace to little fine subrounded gravel.	I, little fine sand, gravel, little fine silt, dry  me medium sand, nd, little rounded to	000000000000000000000000000000000000000	160 -
- 20 - 20 				rounded gravel, trace silt, dry  GRAVELLY SAND: 10YR 4/4 dark ye medium grained sand, little coarse sai sand, some coarse subrounded to rou fine subrounded to rounded gravel, litt cobbles, trace silt, dry  SAND: 10YR 5/4 yellowish brown, me little coarse sand, little fine sand, little subrounded to rounded gravel, trace f gravel, trace subrounded cobbles, trace	nd, trace fine unded gravel, little elle subrounded edium grained, coarse ine rounded	20000000000000000000000000000000000000	155 -
- 25			<u> </u>	SAND: 10YR 4/3 brown, some fine sa sand, little medium sand, little coarse			150 -



Proi	ect Name	e: J-2 RANGI	=		ID.		Location: Coast Guard Com Station, Gro	eenway Road	MME
		1: 4618674.05,		674.10			Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 30					SPSM SP		trace fine rounded gravel, trace to little silt, dry  SAND: 10YR 5/4 yellowish brown, medium grained, little coarse sand, little fine sand, littel fine rounded gravel, trace coarse rounded gravel, trace silt, dry	- 13000000000000000000000000000000000000	145 –
-						/ _	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace to little rounded cobbles, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry		-
- 35 -					SPSM		GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some coarse sand, some medium sand, trace fine sand, some fine subrounded to well rounded gravel, trace to little coarse rounded gravel, trace silt, dry  SAND: 10YR 4/3 brown, medium grained, little fine sand, trace coarse sand, little fine subrounded to well rounded gravel, trace coarse rounded gravel, trace to		140 -
- - 40 -					SP		GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, little coarse subrounded to well rounded gravel, little fine sand, some coarse subrounded to well rounded gravel, little fine rounded to well rounded gravel, trace silt, dry  SAND: 10YR 5/4 yellowish brown, medium grained, little fine sand, trace coarse sand, little coarse subrangular to rounded gravel, trace fine rounded	OM a	135 -
- - 45 -					SPSM SP		gravel, trace rounded cobbles, trace silt, dry  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace coarse sand, trace medium sand, little coarse angular to rounded gravel, little fine subangular to rounded gravel, trace to little silt, dry  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some fine sand, little medium sand, trace coarse sand, little coarse angular to rounded gravel, little fine angular		130 -
- - 50						_	to rounded gravel, trace silt, dry  SAND: 10YR 5/4 yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine and medium		125 -
- - - 55 -					SPSM		grained, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 6/3 light yellowish brown, fine grained sand, little medium sand, trace coarse sand, little coarse angular to subrounded gravel, little fine angular to rounded gravel, trace to little silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine and medium		120 -



Proj	ect Name	e: J-2 RANGE						Location: Coast Guard Com Station, Greenway Road M	1MR
Nor	thing: M	1: 4618674.05, M	12: 4618	3674.10				Easting: M1: 375115.62, M2: 375115.62	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Condu	PS	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (it ma)
- - 60 - -								grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry	5
- 65 -							_	SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse subrounded to rounded gravel, trace fine rounded gravel, trace silt, dry	0 -
- - 70 -								105	5 -
- 75 -							_	SAND: 2.5Y 7/4 pale yellow, fine and medium grained, trace coarse sand, trace subrounded cobbles, trace coarse subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, dry	0 -
- - 80 -									5 - -
							_	SAND: 2.5Y 7/4 pale yellow, fine grained, little medium sand, trace coarse sand, trace fine rounded to well rounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, some medium sand, some fine sand, trace to little coarse sand, little fine subangular to rounded gravel, trace coarse	
- 85 -								and an analysis to an analysis to an anist	0 -
- 90								SAND: 2.5Y 6/3 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace coarse well rounded gravel, trace fine well rounded gravel, trace silt, dry	5 -

Proje	ect Name	e: J-2	RANGE					Location: Coast Guard Com Station, Gr	eenway Road	MMF
Nort	hing: M	1: 46186	674.05, M	12: 4618	674.10			Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-							_	SAND: 2.5Y 6/3 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry  SAND: 2.5Y 6/3 light yellowish brown, fine and medium grained, trace coarse sand, trace to little coarse subrounded to rounded gravel, trace fine rounded gravel, trace silt, dry		
- 95 -								SAND: 2.5Y 7/4 pale yellow, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry		80 –
-								SAND: 2.5Y 6/4 light yellowish brown, medium and coarse grained, trace to little fine sand, little coarse rounded to well rounded gravel, trace fine rounded to well rounded gravel, trace silt, dry		
- 100 -								SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel trace fine rounded gravel, trace silt, dry	_	75 -
- 105 -							_	SAND: 2.5Y 7/3 pale yellow, fine grained, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, damp  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, damp		70 -
- - - 110								No sample, no recovery.	<b>-</b>	65 -
- - - 115						SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained,		60 -
- - - 120 -								some fine sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace to little fine rounded gravel, trace fine rounded gravel, trace silt, wet SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		- - - - 55 – -



Proj	ect Name	e: J-2 RANGE					Location: Coast Guard Com Station, Gr	eenway Road	MMR
Nort	thing: M	1: 4618674.05, M	12: 4618	3674.10			Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 125 -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trac coarse rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace fine rounded to well rounded gravel, trace silt, wet		50 -
- - - 130 -						_	SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,		45 -
- - - 135						_	little medium sand, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, wet  SAND: 2.5Y 7/4 pale yellow, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		40 -
- - - 140 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace coarse		35 -
- - 145 -						_	subrounded to rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		30 -
- - 150 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, little fine sand, little fine rounded to well rounded gravel, trace coarse rounded gravel, trace silt, wet	In-eltu Soil	25 -
-						<u> </u>	SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace silt, wet		



Proje	ect Name	e: J-2 RANGE				Location: Coast Guard Com Station, Gre	enway Road	MMR
Nort	hing: M1	1: 4618674.05, N	Л2: 4618	3674.10		Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 155 - -						SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet  SAND: 2.5Y 7/6 yellow, medium grained, some fine sand, trace coarse sand, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/3 light yellowish brown, fine grained,		20 -
- - 160 - -						little medium sand, trace coarse subrounded gravel, trace fine subrounded gravel, trace silt, wet		15 -
- 165 - - -								10 -
- 170 - -						SAND: 2.5Y 5/4 light olive brown, fine grained, trace medium sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace silt, wet		5-
- - 175 -					SP	SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, wet		0-
- - 180 - -					SP	SILT: 10YR 6/6 brownish yellow, little fine sand, trace coarse sand, trace medium sand, trace fine rounded gravel, wet  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, little fine subrounded to rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace silt, wet  SAND: 2.5Y 7/4 pale yellow, medium grained, some fine sand, trace coarse sand, trace fine rounded gravel, trace silt, wet		-5 - -
- - 185 - -						SAND: 2.5Y 6/3 light yellowish brown, fine and medium grained, trace coarse sand, trace silt, wet		-10 -

Proj	ect Name	e: J-2 RANGE					Location: Coast Guard Com Station, Gre	enway Road	MMR
Nor	thing: M	1: 4618674.05, N	12: 4618	3674.10			Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma CPS Conduct 2 6	;	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 190 - -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace silt, wet  SAND: 2.5Y 6/3 light yellowish brown, medium grained, some fine sand, trace coarse subrounded gravel, trace fine rounded gravel, trace silt, wet  No sample, no recovery.		-15 -
- - 195 -					_	SP	SAND: 2.5Y 7/4 pale yellow, medium grained, some fine sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		-20 -
- - 200 -							SAND: 2.5Y 7/4 pale yellow, fine grained, little medium sand, trace coarse sand, trace coarse subrounded gravel, trace fine rounded gravel, trace silt, wet		-25 -
- - 205 -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet		-30 -
- - 210 -					_	SM	SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, dry  No sample, no recovery.		-35 -
- - 215 -						SP	SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, trace coarse sand, trace fine rounded gravel, trace silt, wet		-40 -
-							SAND: 10YR 6/6 brownish yellow, medium grained, little coarse sand, little fine sand, little fine rounded		

Proje	ect Name	e: J-2	RANGE					Location: Coast Guard Com Station, Gre	eenway Road	MMF
Nort	thing: M1	1: 46186	674.05, M	12: 4618	674.10			Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	;	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 220 - -						SPSM SP		gravel, trace silt, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, trace coarse sand, little coarse rounded gravel, trace fine rounded gravel, trace to little silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained,		-45 -
- 225 -								some fine sand, trace coarse sand, trace fine roudned gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet  SAND: 10YR 6/6 brownish yellow, fine and medium grained, trace silt, wet  SAND: 2.5Y 6/3 light yellowish brown, fine and medium grained, trace coarse sand, trace silt, wet		-50 -
- 230 -								No sample, no recovery.	Bentonite Seal	-55 <del>-</del>
- - 235 -						SP		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace silt, wet		-60 -
- 240 -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, trace coarse well rounded gravel, trace fine rounded gravel, trace silt, wet SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet No sample, no recovery.	5w 00#	-65 <b>-</b>
- 245 -										-70 -
- - 250										-75 <b>-</b>

Proje	ect Name	e: J-2 RANGE					Location: Coast Guard Com Station, Gre	eenw	ay Road	MMF
Nort	thing: M	1: 4618674.05, M	12: 4618	3674.10			Easting: M1: 375115.62, M2: 375115.62			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Con	Well struction agram	Elevation (ft msl)
- - 255 - -					SP	/	SAND: 2.5Y 7/4 pale yellow, medium grained, some fine sand, trace coarse sand, trace fine rounded gravel, trace silt, wet  SAND: 5Y 5/4 olive, fine grained, little medium sand, trace silt, wet  SAND: 2.5Y 7/6 yellow, fine and medium grained, trace	In-situ Soil		-80 -
- - 260 -						_	coarse sand, trace fine subrounded to rounded gravel, trace silt, wet			-85 -
- 265 -							SAND: 5Y 5/3 olive, fine grained, little medium sand, trace silt, wet			-90 -
- 270 							SAND: 2.5Y 6/6 olive yellow, medium grained, some fine sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet  No sample, no recovery.	Bentonite Seal		-95 —
- - 275 - -					SP		SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet	-	-	100 -
- 280 - - -					SM		SILTY SAND: 2.5Y 5/6 light olive brown, fine grained, trace medium, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace fine rounded gravel, trace silt, wet  GRAVELLY SAND: 2.5Y 6/6 olive yellow, some medium sand, little coarse sand, little fine sand, little coarse rounded gravel, little fine rounded gravel, trace silt, wet	BW 008	-	105 -



							141 44			
Proj	ect Name	e: J-2 RANGE						Location: Coast Guard Com Station, Gre	eenway Ro	ad MMF
Nor	thing: M	1: 4618674.05, M	12: 4618	8674.10				Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Condu	na Log PS uctivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	a
- 285 - - - - 290 -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace fine rounded gravel, trace silt, wet  No sample, no recovery.		-110 - - - - -115 -
- - 295 -					_	SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace coarse subrounded to rounded gravel, trace fine rounded gravel, trace silt, wet	_	-120 -
- 300 -								SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, trace coarse sand, trace fine subrounded to rounded gravel, trace silt, wet		-125 -
- 305 -								SAND: 2.5Y 5/4 light olive brown, fine and medium grained, trace coarse sand, trace fine rounded gravel, trace silt, wet  SAND: 10YR 5/6 yellowish brown, medium grained, some fine sand, trace coarse sand, trace to little coarse subrounded to rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace silt, wet		-130 -
- - 310 -						ML		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, little coarse rounded to well rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/5 light yellowish brown/olive yellow, fine and medium grained, trace coarse sand, trace silt, wet  SANDY SILT: 2.5Y 5/5 light olive brown, some fine sand, little medium sand, trace coarse sand, wet	2 WG	-135 - -
- - 315 -						SP		GRAVELLY SAND: 10YR 5/4 yellowish brown, some medium sand, little fine sand, trace to little coarse sand, little coarse subrounded to rounded gravel, little fine subrounded to rounded gravel, trace to little rounded cobbles, trace silt, wet  SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		-140 -



Proje	ect Name	e: J-2	RANGE				Location: Coast Guard Com Station, Gre	eenway Road	і ММ
Nort	hing: M1	1: 46186	674.05, M	12: 4618	674.10		Easting: M1: 375115.62, M2: 375115.62		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 320 325 330 						SPSM	SAND: 2.5Y 6/3 light yellowish brown, fine and medium grained, trace coarse sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, some medium sand, some fine sand, trace coarse sand, some coarse subrounde to rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 5Y 5/2 olive gray, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine subrounded to rounded gravel, trace silt, wet  GRAVELLY SAND: 5Y 4/2 olive gray, some fine sand, little coarse sand, little medium sand, little coarse subangular to rounded gravel, trace subrounded cobbles, little silt, wet  SAND: 5Y 4/3 olive, fine grained, little medium sand, trace coarse sand, trace to little silt, trace coarse subrounded gravel, trace fine rounded gravel, wet  No sample, no recovery.	In Seal	.145
- 335 -						BR	BEDROCK: Competent light gray and red granite bedrock  BEDROCK: Competent light gray, red and green granite bedrock; light green cover sugguests chemical alteration	Bedrock Bentonite Seal	-160 -
- 340							No sample, no recovery.		-165 –
- - - 345 - -							Notes: 1. Well Depths MW-354M1: 284.82 ft (BGS) MW-354M2: 245.12 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-354M1: 10.00 ft MW-354M2: 10.00 ft 4. Screen Intervals MW-354M1: 274.52 - 284.52 ft (BGS) MW-354M2: 234.80 - 244.80 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 175.02 ft (MSL)	-	.170 –



Project	t Name:	J-2	RANGE				Location: Coast Guard Com Station, Gre	Location: Coast Guard Com Station, Greenway Road MM				
Northin	ng: M1:	4618	3674.05, N	12: 4618	8674.10		Easting: M1: 375115.62, M2: 375115.62	Easting: M1: 375115.62, M2: 375115.62				
Depth ft (BGS)	ן <u>∸</u> (	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)			

					T			
Project Name: J-2					Location:			
	7269.58, S: 46172	69.63			Easting: M1: 375061.52, S:	375061.52		
Drilling Contractor:	D. L. Maher Co.	E	Elevation f	t (MSL):	: M1: 157.57, S: 157.57 @	Top PVC		
Drilling Equipment:	Rotosonic Drill	V	Well Depth	ft (BGS	S): M1: 230.30, S: 102.95			
Drilling Method: Ro	otosonic Drill	E	BH Depth/	Diam: 3	35.00 ft (BGS), 6.00 in.	First Water ft (B	(BGS): 95	
Sampling Method: S	Submersible Pum	p s	Start/End [	Date: 10/19/04 - 11/03/04		Well Diameter (	in.): 2.50	
Const. Materials S	SCH 80 PVC	F	Project Nu	mber: 3	5AY5301	Static Water ft (	BTOC): 87.60	)
Logged by: L. Bae	rga Reviewed b	y: Larry Pa	nnell, P	G	Completion: Flushmount	Date Measured	08/02/05	
Depth ft (BGS) Blow Counts Per 6 Inches Sample Interval	Sample ID	Gamma Log CPS 20 45 70 Conductivity 2 6 1	Class		Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
							M1 S	160 -
-0			OL	7171	ORGANIC SILT: 10YR 4/3 brown, roo	ots, dry		]
			ML		SILT: 2.5Y 5/6 light olive brown			]
- -5 -			SM		SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, some fine sand, tra sub-rounded gravel, angular to sub-roi silt, dry	ice fine angular to	00000000000000000000000000000000000000	155 -
- 10					SAND: 2.5Y 4/3 olive brown, medium coarse sand, some fine sand, trace fin rounded gravel, little silt, dry	e angular to sub-		-
			SP GP	QuQu	SAND: 2.5Y 7/4 pale yellow, medium little coarse sand, trace fine sand, tr	e silt, dry	30000000000000000000000000000000000000	145 -
- 15 - - -				00000000000000000000000000000000000000	sand, little coarse sand, trace fine san sub-rounded gravel, little fine sub-rour silt, dry	d, some coarse	00000000000000000000000000000000000000	- - 140 –
- 20 - - - - 25			SM	α:α	SAND: 2.5Y 6/4 light yellowish brown some coarse sand, trace fine sand, tra angular to sub-rounded gravel, little fir rounded gravel, little silt, dry	ice coarse	11W0	135 -
					SAND: 2.5Y 4/3 olive brown, medium sand, little fine sand, little fine sub-ang silt, dry  SAND: 2.5Y 6/4 light yellowish brown some coarse sand, trace fine sand, trace	ular gravel, little	S	130 -

Proje	ect Name	: J-2	RANGE					Location:		
Nort	hing: M1	: 46172	269.58, S	: 46172	69.63			Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS (		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 30 -						SPSM		angular to sub-rounded gravel, little fine sub-angular to sub-rounded gravel, little silt, dry  SAND: 2.5Y 6/4 light yellowish brown, medium sand, little coarse sand, trace to little fine sand, trace coarse sub-angular to sub-rounded gravel, little fine sub-angular to sub-rounded gravel, trace to little silt, dry	-	125 -
- 35 - - - - - 40									30000000000000000000000000000000000000	120 -
- - - 45						SW		SAND: 2.5Y 4/3 olive brown, medium sand, little coarse sand, little fine sand, some fine sub-angular to sub-rounded gravel, little silt, dry  SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace to little coarse sand, little fine sand, trace coarse sub-angular to sub-rounded gravel, trace fine sub-angular to sub-rounded gravel, trace cobbles, trace to little silt, dry	-	115 -
- - 50 -						SP	<u> </u>   : / ;	SAND: 2.5Y 4/3 olive brown, medium sand, little coarse sand, some fine sand, trace coarse sub-angular to sub-rounded gravel, little fine sub-angular to sub-rounded gravel, little silt, dry		110 -
- - 55 - -								SAND: 2.5Y 7/4 pale yellow, medium sand, trace coarse sand, little fine sand, trace silt, dry		100 -
- - 60 - -										95 -

							101 00 -			
Proj	ect Name	e: J-2	RANGE					Location:		
Nor	thing: M		269.58, S	: 46172	69.63			Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 65 70 75 80 85 85								No sample, no recovery.	Bentonite Seal    Institut Soil	90
- 90 						SP		SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace to little coarse sand, trace to little fine sand, trace fine sub-angular to sub-rounded gravel, wet	100 MW 0004	65 - - - - - - - -

Proje	ect Name	e: J-2 RANGE				Location:		
Nort	hing: M	1: 4617269.58,  \$	S: 461726	9.63		Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 105								55 -
- 110 -								50 -
- - 115 -						SAND: 2.5Y 7/4 pale yellow, medium sand, little fine sand, trace fine sub-angular to sub-rounded gravel, trace silt, wet		45 -
- - 120								40 -
- - 125 -								35 -
- - 130 -						No sample, no recovery.		
- - 135 -					SP	SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, trace fine sand, trace coarse sub-angular to sub-rounded gravel, trace fine sub-angular to sub-rounded gravel, trace cit, wet		25 -

<u> </u>	4 51		_			141 44			$\neg$
		e: J-2 RANG					Location:		
Nort	thing: M <sup>*</sup>	1: 4617269.58,	S: 4617269	0.63			Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 140									20 -
-					ML		SILT: 2.5Y 5/4 light olive brown, little fine sand, wet		15 -
- 145 					SP		SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, trace fine sand, trace coarse subangular to sub-rounded gravel, trace fine sub-angular to sub-rounded gravel, trace silt, wet		10 -
- - 150 -							No sample, no recovery.	-	-
- - - 155 -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, trace medium sand, trace fine gravel,	-	5- - -
- - - 160 -							some silt, wet	In-altu Soli	0-
- - - 165					ML		CLAYEY SILT: 5Y 5/2 olive gray, little fine sand, wet		-5 <del>-</del>
- - - 170									-10 -
- - -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, some		-15 -

Proje	ect Name	e: J-2 I	RANGE				 Location:		
Nort	hing: M1		269.58, S	: 46172	69.63		Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	) SOSI	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 175 - -						ML	silt, wet  SILTY SAND: 10YR 5/6 yellowish brown, fine grained, wet, faint layering  SILTY SAND: 10YR 5/4 yellowish brown, fine grained, wet		-20 -
- 180 - -							SILT: 5Y 4/2 olive gray, trace to little fine sand, little clay, wet		-25 -
- 185						SP ML	SAND: 2.5Y 5/6 light olive brown, fine sand, little medium sand, wet, mottled  SILT: 5Y 4/2 olive gray, trace to little fine sand, little clay, wet		-30 -
- 190 - - - - - 195							SILT: 5Y 5/2 olive gray, moist		-35 ·
- 200						SM	SILT: 5Y 4/2 olive gray, trace to little fine sand, little clay, wet  SAND: 2.5Y 5/4 light olive brown, medium sand, some fine sand, little silt, wet, interbedded with occasional thin layers of silt		-40 -
- - - 205									-45 ·
-							No sample, no recovery.		-50 -

Proje	ect Name	: J-2 RANGE				Location:		
		1: 4617269.58, S	: 4617269	9.63		Easting: M1: 375061.52, S: 375061.52		$\dashv$
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 210 -								-
- - 215 - -					SP	SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, little fine sand, trace coarse subangular gravel, trace fine sub-angular to sub-rounded gravel, occasional cobbles, trace silt, wet	Bentonite Seal	-55 - - - - -60 -
- 220 - -								-65 —
- 225 - - -							UM 00#	-70 -
- 230 - -								- -75 -
- 235 - - -								-80 -
- 240 - - - - - 245						No sample, no recovery.		-85 -

Proje	ect Name	e: J-2 RANGE				Location:		
Nort	hing: M	1: 4617269.58, S	: 4617269.6	3		Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id		mma Log CPS nductivity 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - - 250								-90 - - -
-								-95 <b>-</b>
- 255 - - - - - 260					SM	SAND: 2.5Y 5/6 light olive brown, medium sand, some coarse sand, little fine sand, little coarse sub-angular to sub-rounded gravel, little fine sub-angular to sub-rounded gravel, occasional cobbles, little silt, wet	-	100 -
-						SAND: 5Y 4/1 dark gray, medium sand, some fine sand, trace fine sub-angular to sub-rounded gravel, cobbles, little silt, wet	-	105 -
- 265 - -						SAND: 2.5Y 5/4 light olive brown, medium sand, trace coarse sand, little fine sand, trace fine sub-angular to sub-rounded gravel, little silt, wet  SAND: 2.5Y 5/4 and 5/6 light olive brown, fine grained, little medium sand, trace fine gravel, little silt, wet	-	110 -
- 270 -							-	- - 115 -
- 275 - -						SAND: 2.5Y 5/4 and 5/6 light olive brown, fine grained, trace to little medium sand, trace coarse sub-rounded gravel, trace fine sub-rounded gravel, some silt, wet, interlayered with SILT: 2.5Y 4/3 olive brown, little clay, mottled	-	120 -
- 280 -							In-situ Soil	1



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M	1: 46172	269.58, S	: 46172	69.63			Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 285									-	125 -
- - - 290								No sample, no recovery.	-	.130 -
- - - 295						SM		SAND: 10YR 5/8 yellowish brown, medium sand, trace coarse sand, little fine sand, trace fine gravel, some silt,	-	135 -
- - - 300								wet, lightly mottled		140 -
- 305 -								SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, some silt, damp		145 -
- 310 -							<u>                                      </u>	SANDY SILT: 2.5Y 5/4 light olive brown, little fine sand, trace coarse sand, little medium sand, little coarse sub-		155 -
- - 315 -						SW CL		angular to sub-rounded gravel, little fine sub-angular to sub-rounded gravel, cobbles, damp  SAND: 2.5Y 5/4 light olive brown, fine grained, little coarse sand, little medium sand, little fine angular to sub-rounded gravel, trace cobbles, some silt, wet		-
-							IIII	SILTY CLAY: 5Y 4/1 dark gray, little fine sand, little fine angular to sub-rounded gravel, wet (top 6 inches), dry throughout remaining sample, very hard	-	160 -



Proj	ect Name	e: J-2 RANGE					Location:		
Nor	thing: M	1: 4617269.58, S	: 46172	69.63			Easting: M1: 375061.52, S: 375061.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 320 - - - - 325 - - -							No recovery except for some drill-washed gravel and cobbles of various lithologies		165 -
- 335					BR	** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\ ** < *\	BEDROCK: Gray crystalline igneous rock	Bedrootk -	175 -
- - - 340 -							Notes: 1. Well Depths MW-355M1: 230.30 ft (BGS) MW-355S: 102.95 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-355M1: 10.00 ft MW-355S: 10.00 ft 4. Screen Intervals MW-355S: 92.65 - 102.65 ft (BGS) 5. Slot Size 0.010 in.		180 - - - - 185 -
- - 345							6. Surface Elevation: 157.86 ft (MSL)  Printed on 01/10/07		-

							OC IL	), IVI	W-337				
Proje	ct Name	: J-2	RANGE						Location:				
North	ning: M	1: 46	18397.33,	M2: 4	618397	'.38			Easting: M1: 375488.91,	M2: 375488.9	1		
Drillir	ng Contra	actor:	D. L. Mah	er Co.		EI	levation t	ft (MSL)	: M1: 167.35, M2: 167.35	@ Top PVC			
Drillir	ng Equipi	ment: [	Dual Air R	otary		W	ell Deptl	h ft (BG	S): M1: 285.03, M2: 194.40	)			
Drillir	ng Metho	d: Aiı	r-Rotary			ВІ	H Depth/	/Diam: 3	32.00 ft (BGS), 8.00 in.	First Water ft (B	3GS): 1	10	
Sam	pling Met	hod: S	Stainless S	Steel Ba	ailer	St	art/End I	Date: 1	0/26/04 - 12/10/04	Well Diameter (	(in.): 2	2.50	
Cons	t. Materi	als S	SCH 80 P	/C		Pi	roject Nu	ımber: (	35AY5301	Static Water ft (	BTOC)	97.40	0
Logg	ed by: S	. Mixa	an Re	eviewed b	y: Larr	y Par	nell, P	G	Completion: Flushmount	Date Measured	: 04/0	3/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CI 20 4 Condu	na Log PS 45 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic		Const	/ell truction gram	Elevation (ft msl)
-											М	1 M2	170 -
-0 - - - -5 -							SP		SAND: 2.5Y 5/4 light olive brown, me sand, trace coarse sand, some fine sa silt, dry		100000000000000000000000000000000000000	300000000000000000000000000000000000000	165 -
- - 10 - - - - - - 15									SAND: 2.5Y 4/3 olive brown, fine gra little coarse sand, little medium sand, subrounded fine gravel, little silt, dry		- 1000000000000000000000000000000000000	300000000000000000000000000000000000000	155 -
- - 20 -									SAND: 2.5Y 6/4 light yellowish brown sand, some medium sand, trace to litt		-	300000000000000000000000000000000000000	150 - - - - 145 -
- 25 - - -											333333333333333333333333333333333333333	200000000000000000000000000000000000000	140 -
- 30 - - - - - 35 -									SAND: 2.5Y 6/4 light yellowish brown sand, some medium sand, trace silt, of		#1 WG	300000000000000000000000000000000000000	135 -
- - - 40 -											300000000000000000000000000000000000000	30000000000000000000000000000000000000	130 -

							101 00 -5			$\overline{}$
$\vdash$			RANGE					Location:		
No	rthing: M		397.33,	M2: 46	18397.38			Easting: M1: 375488.91, M2: 375488	3.91	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 45 - 50 - 50 - 65 - 70 - 75 - 75 - 80 - 75 - 79									50000000000000000000000000000000000000	110 - 110 - 110 - 100 - 95 - 90 -



Proj	ect Name	: J-2 RANGE				Location:		
Nort	thing: M	1: 4618397.33,	M2: 46	18397.38		Easting: M1: 375488.91, M2: 375488.9	91	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - - - - - - - - - - -						SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, trace coarse sand, some fine sand, trace to little silt, slightly moist	¥	70 - - - - 65 - - - - - -
- 110 - - - - 115 - - - 120					SM	SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace medium sand, silts, wet	₹	55 -
- - - 125 - - - - - - 130					SP	SAND: 2.5Y 5/3 light olive brown; medium grained sand, little coarse sand, some fine sand, trace silt, wet	In-situ Soil	45 -
- - - - 135 - -						SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace coarse sand, little medium sand, little silt, wet		35 -
- 140 - - - - - 145 - -					SM	SILTY SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace medium sand, silts, wet		25 -



							101 00 -			
Proje	ect Name	∷ J-2	RANGE					Location:		
Nort	hing: M		8397.33,	M2: 46	18397.38			Easting: M1: 375488.91, M2: 375488.	91	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 -										15 -
- 155 - 156 - 160										10 -
- - - 165						SP		SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, some medium sand, trace to little silt, wet		5-
- 170 - 175							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, some fine sand, trace to little silt, wet	-	-5 -
- 180									Bentonite Seal	-10 -
- - - 185 -							_	SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, little medium sand, trace to little silt, wet		-15 - - - -20 -
- - - 190 -						SM		SILTY SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace medium sand, silts, wet	900 Wg	-25 -
- - - 195 - -										-30 -
- - 200 -								SILTY SAND: 2.5Y 5/4 light olive brown, fine grained		-35 -



Proje	ect Name	: J-2 RANGE				Location:	
Nort	hing: M	1: 4618397.33,	M2: 46	18397.38		Easting: M1: 375488.91, M2: 375488.91	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description Construction and Associated Lithographic Symbol Diagram	Elevation (ff msl)
- - 205 - -						sand, silts, wet	-40 -
- 210 - - -					SP	SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace medium sand, some silt, wet	-45 —
- 215 - - - - - 220							-50 -
- - - - 225					SM	CHITY CAND. 2 EV E/2 light alive brown fine project	-55 - -55 -
- - - - 230					GIVI	SILTY SAND: 2.5Y 5/3 light olive brown, fine grained sand, trace medium sand, silts, wet	-60 <del>-</del>
- - - 235 -						Inealty Soil	-65 <del>-</del>
- - - 240 -							-70 - - - - -75 -
- - - 245 - -					SP	SAND: 2.5Y 5/4 light olive brown, fine grained sand, trace coarse sand, trace medium sand, little silt, wet	-80 -
- 250 - 250						SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace medium sand, trace to little silt, wet	-85 —
- - 255 -							-



							1 <b>V1 VV</b> -			
			RANGE					Location:		
Nort	hing: M		8397.33,	M2: 46	318397.38			Easting: M1: 375488.91, M2: 375488.	91	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construct Diagram	g
- - - - 260										-90 - -
- - - 265 - -							::::::::::::::::::::::::::::::::::::::	SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace coarse sand, trace medium sand, trace to ittle fine subangular gravel, trace to little silt, wet		-95 - - - -100 -
- 270 - - - - - 275								SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace coarse sand, some medium sand, trace to ittle silt, wet	Bentonite Seal	-105 - -105 -
- - - - 280									64	-110 - -110 - - -
- - - 285 -								SAND: 2.5Y 6/3 light yellowish brown, medium grained sand, trace coarse sand, some fine sand, trace silt, wet	1008	-115 - - - -120 -
- - 290 - - -							:::::::::: s	SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, trace coarse sand, some medium sand, trace silt, wet	-	-125 -
- 295 - - - - 300										-130 <del>-</del>
- - - - 305										-135 - -1 -135 -
-								SAND: 2.5Y 5/2 grayish brown, fine grained sand, trace coarse sand, little medium sand, little silt, wet		-140 - -140 -

Proj	ect Name	e: J-2	RANGE						Location:		
Nor	hing: M		8397.33,	M2: 46	18397	.38			Easting: M1: 375488.91, M2: 375488.	91	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Condu	PS	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 310										log n	-
- - - - 315									SAND: 2.5Y 5/2 grayish brown, medium grained sand, little coarse sand, little fine sand, some coarse and fine subangular gravel, trace silt, wet	Mis-mi	-145 - - - - -
- - - 320											-150 - - - -
- - - 325											-155 - - - - -
- 330								- -	SAND: 2.5Y 5/2 grayish brown, medium grained sand, little coarse sand, little fine sand, some coarse and fine subangular gravel, trace silt, wet  BEDROCK: Granitic Bedrock Encountered		-160 <del>-</del> - - -
- - - 335							BR	\(\delta\).<\(\delta\)	BEDITOGIC Granue Beditock Encountered		-165 <del>-</del> -
- - - - 340 -									Notes: 1. Well Depths MW-357M1: 285.03 ft (BGS) MW-357M2: 194.40 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-357M1: 10.00 ft MW-357M2: 10.00 ft		- -170 - - - -
- - - 345									4. Screen Intervals MW-357M1: 274.51 - 284.51 ft (BGS) MW-357M2: 184.08 - 194.08 ft (BGS) 5. Slot Size 6. Surface Elevation: 167.29 ft (MSL) Printed on 11/01/06		-175 - - - -
Ь							·		I TITLEG OFF FIVO I/OU		<b>-</b> 180 <b>-</b>

Proie	ct Name	: J-2	RANGE						Location:			
			7849.04, N	И2: 461	7849.09				Easting: M1: 375538.70, M2	2: 375538.70		
<u> </u>			D. L. Mah			Ele	evation 1	ft (MSL):	M1: 161.78, M2: 161.78 (			
			Rotosonic			+			s): M1: 240.69, M2: 188.34			
Drillir	ng Metho	d: Ro	tosonic D	rill		_			49.20 ft (BGS), 6.00 in.	First Water ft (B	GS): 95	
Sam	oling Met	thod: S	Submersib	le Pum	p	+			1/04/04 - 11/17/04	Well Diameter (	in.): 2.50	
Cons	t. Materi	als S	CH 80 P\	/C		Pro	oject Nu	ımber: 3	5AY5301	Static Water ft (		5
Logg	ed by: L.	. Baer	ga Re	eviewed b	y: Larry	_∟ Panr	nell, P	G	Completion: Flushmount	Date Measured		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conduct 2 6	70	USCS Class		Lithologic Description and Associated Lithographic S	Symbol	Well Construction Diagram	Elevation (ft msl)
-0							OL		ORGANIC SILT: 10YR 3/4 dark yello		M1 M2	- - -
-							ML		medium sand, trace fine sand, roots, c SILT: 2.5Y 5/6 light olive brown, trace roots, damp	/		160 <b>-</b>
-5 -							SW		SAND: 10YR 5/4 yellowish brown, me coarse sand, trace fine sand, little coa subrounded gravel, little fine subangul gravel, cobbles, dry  GRAVELLY SAND: 2.5Y 5/6 light oliv sand, little coarse sand, some coarse subrounded gravel, little fine subangul	rse subangular to ar to subrounded  e brown, medium subangular to	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	- - 155 -
- 10 - 1									gravel, dry, mottled		000000000000000000000000000000000000000	- - 150 - -
- 15 - - -									GRAVELLY SAND: 2.5Y 4/4 olive bro sand, little coarse sand, trace fine san subangular to subrounded gravel, little to subrounded gravel, dry	d, some coarse		- 145 - - -
- 20 - -									No sample, no recovery.		-	- 140 - - -
- 25 - -							SP		SAND: 10YR 4/4 dark yellowish brow little coarse sand, trace to little coarse subrounded gravel, little fin subangula gravel, dry	subangular to		135 - -
30												-



Proj	ect Name	e: J-2 RANGE					Location:		
Nor	hing: M1: 4617849.04, M2: 4617849.09						Easting: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	á	Lithologic Description and Associated Lithographic Symbol	Well Construct Diagram	a
-					SW		GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium sand, little coarse sand, little fine sand, little coarse subangular gravel, some fine subangular gravel, cobbles, little silt, dry	-	130 -
- 35 - -					SP		GRAVELLY SAND: 2.5Y 4/4 olive brown, medium sand, little coarse sand, little fine sand, some fine subangular to subrounded gravel, cobble, dry  SAND: 2.5Y 7/4 pale yellow, medium sand, trace coarse sand, trace cobbles, dry	- 100 000	125 -
- 40					SW		GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium	- 100	-
- - - 45					ow.	8	SRAVELLY SAND. 2.51 3/4 light blowly, filedulin sand, little coarse sand, little coarse sand, some carse sand, fine subangular to subrounde gravel, cobbles, trace silt, dry	#2 WG	120 - - - -
-								200000000000000000000000000000000000000	115 - -
- 50 -						:::::: r	GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium sand, little coarse sand, trace fine sand, some coars sand, fine subangular to subrounded gravel, trace silt, dry  No sample, no recovery.	-	110 -
- - - 55					SW		GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium	- 1000000	
-						s	sand, little coarse sand, trace fine sand, some coarse sand, fine subangular to subrounded gravel, cobbles, rrace silt, dry	- 100	105 -
- 60 -						:::::: s	GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium sand, little coarse sand, little fine sand, trace to little coarse subangular to subrounded gravel, some fine subangular to subrounded gravel, little silt, dry	- 100	100 -
- 65 -					SM	· · · · · · · · · · · · · · · · · · ·	No sample, no recovery.  SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, little coarse subangular to subrounded gravel, little fine subangular	- 1000000	95 –
ļ							o subrounded gravel, some silt, dry		

Proje	ect Name	e: J-2 RANGE					Location:		$\neg$
Nort	thing: M1	1: 4617849.04, M	2: 4617849.0	)9			Easting: M1: 375538.70, M2: 375538.70		$\dashv$
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		nma Log CPS ductivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 70 - -					SP		SAND: 2.5Y 7/4 pale yellow, medium sand, trace coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace to little subangular to subrounded gravel, dry	20000000000000000000000000000000000000	90 -
- 75 - -							SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, dry	- 0000000000000000000000000000000000000	- - 85 – -
- 80 - - -								000000000000000000000000000000000000000	80 -
- 90							SAND: 2.5Y 7/4 pale yellow, medium sand, trace coarse sand, trace fine sand, dry		75 -
- - - - 95							SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, trace fine	<b>T</b>	
- - - 100 -						/	SAND: 2.5Y 5/4 light olive brown, medium sand, trace coarse sand, moist  No sample, no recovery.		65 -
- - 105 -					SP		SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, trace fine sand, trace coarse		

Proje	ect Name	e: J-2 RANGE				Lo	ocation:		
Nort	hing: M1	1: 4617849.04, M	2: 461784	9.09		Ea	asting: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class	and	Lithologic Description d Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 110						suba to su	angular to subrounded gravel, trace fine subangular ubrounded gravel, wet		55 -
- - - 115									50 -
- - 120 -						No s	sample, no recovery.		40 -
- - 125 - -					SP	SAN little grav	ID: 2.5Y 6/4 light yellowish brown, medium sand, coarse sand, trace fine subangular to subrounded rel, wet		35 -
- 130 -						adva	sample, no recovery. Driller reported corer anced very easily through week sands. May be lar to 145-155 below.	In-aitu Soil	30 -
- 135 - - -								In-aftu Soi	25 -
- 140 - -									20 -

Proj	ect Name	: J-2 RANGE					Location:		
-		1: 4617849.04, M	2: 46178	349.09			Easting: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id		Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 145 - -					SP	S	SAND: 2.5Y 6/4 light yellowish brown, fine sand, trace o little medium sand, wet		15 -
- 150 - -									10 -
- 155 - -						N	lo sample, no recovery. Weak fine sands inferred.		5-
- 160 -									0-
- 165 - - - - 170					SP		SAND: 2.5Y 5/6 light olive brown, medium sand, little oarse sand, trace fine gravel, cobbles		-5 <del>-</del>
- 175						N	lo sample, no recovery. Weak fine sands inferred.	Bentonite Seal	-10 -
- - - - 180									-15 <del>-</del>
-								BM (	-20 -

					.00		101 00 -	1		
	Project Name: J-2 RANGE  Northing: M1: 4617849.04, M2: 4617849.09							Location:		
Nort	thing: M1: 4617849.04, M2: 4617849.09						1	Easting: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma CPS Conduct 2 6	3	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 185 - 185 190 190						SPSM		SAND: 2.5Y 6/4 light yellowish brown, fine sand, little medium sand, trace to little silt, wet		-25 -
- - 195 - -						SP		SAND: 2.5Y 5/6 light olive brown, medium sand, little coarse sand, trace coarse subangular gravel, trace to little fine subangular gravel, cobbles, wet  No sample, no recovery.		-35 -
- 200 - - -										-40 -
- 205 - - - - - 210						SP		SAND: 2.5Y 5/6 light olive brown, medium sand, little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, cobbles, wet	In-aftu Soil	-45 <del>-</del>
- - - 215										-50 - - - - -55 -
- - - 220										

Proje	ect Name	: J-2 RAN	2E				Location:		
-		1: 4617849.04		7840.00			Easting: M1: 375538.70, M2: 375538.70		
HOIT			, IVIZ. 401	7 049.09			Easurig. W11. 373336.70, W2. 373336.70		=
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-						О С	SAND: 2.5Y 5/6 light olive brown, medium sand, trace coarse sand, little fine sand, trace coarse subangular gravel, trace fine subangular gravel, trace silt, wet	lead of the control o	-60 <del>-</del> -
- 225 - - - - 230								Bentonite Seal	-65 - -
- 230 - - - 235								Sign our	-70 - -
-					SPSM	s i	SAND: 2.5Y 5/6 light olive brown, fine sand, trace	Box cos	-75 - -
- 240 - - - - 245						n	nedium sand, trace to little silt, wet	1	-80 - - -
-					SM		SAND: 2.5Y 5/4 light olive brown, fine sand, little silt, vet, faint layering		-85 - -
- 250									-90 <del>-</del>
- 255 - -							SAND: 2.5Y 6/4 light yellowish brown, fine sand, little		-95 - -

Proje	ect Name	e: J-2	RANGE				Location:		
Nort	hing: M′	1: 4617	849.04, M	l2: 4617	849.09		Easting: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 260 -							silt, wet, faint layering		-100 -
- 265 -							SAND: 2.5Y 6/4 light yellowish brown, fine sand, little silt, wet		-105 —
- 270 -							SAND: 2.5Y 6/4 light yellowish brown, medium sand, little fine sand, little silt, wet		-110 <del>-</del>
- 275 - - - - 280							No sample, no recovery.		-115 - - -
- - - - 285						SP	SAND: 2.5Y 6/4 light yellowish brown, medium sand, little fine sand, trace silt, wet		-120 <del>-</del>
- - - 290 -								In-eltu Soil	-125 <del>-</del> - - -130 <del>-</del>
- - 295 -									-135 -

Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	1: 46178	349.04, M	l2: 4617	849.09			Easting: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 300 - -										- - - - 140 –
- 305 -						SM	-  -  -	SAND: 2.5Y 6/4 light yellowish brown, medium sand, trace coarse sand, little fine sand, trace fine to little subangular to subrounded gravel, little silt, wet	-	- -145 – -
- 310 -						SPGP	Ca Ca Ca Ca	GRAVELLY SAND: 2.5Y 5/2 grayish brown, coarse sand, little medium sand, some fine subangular to subrounded gravel, little coarse gravel, wet  SILT: 5Y 5/2 olive gray, some coarse subangular to subrounded gravel, cobbles, little fine sand, wet	-	-150 — -
- 315 - - - - 320								No sample, no recovery. Very difficult drilling from 312.5' to 332' (numerous cobbles present)	-	.155 -
- - - 325									-	.160 -
- 330										-165 -
- - - 335						GC		CLAYEY GRAVEL: gley 4/ dark gray, coarse and fine angular gravel, trace coarse sand, dry	onlife Seal	-170 -



Proje	ect Name	: J-2	RANGE				Loca	tion:		
Nortl	hing: M1		849.04, M	2: 4617	849.09		Easti	ng: M1: 375538.70, M2: 375538.70		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	and A	Lithologic Description ssociated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 340 - 345 						BR	AYAA relict on	LITE: dark green-gray highly weathered rock, stalline texture, dry  TENT BEDROCK: Black, gray crystalline rock te, crystal-filled veins. Total depth of boring gs.	In-situ Soil	-175 - 180 - 185 -
- 350 -									***************************************	-
- 355 							MW-35 MW-35 2. SCH Screen 3. Scre MW-35 4. Scre MW-35 MW-35 5. Slot	Depths 8M1: 240.69 ft (BGS) 8M2: 188.34 ft (BGS) 80 PVC s en lengths 8M1: 10.00 ft 8M2: 10.00 ft en intervals 8M1: 230.00 - 240.00 ft (BGS) 8M2: 178.00 - 188.00 ft (BGS) Size 0.010 in. ace Elevation: 161.68 ft (MSL)		-190 - - - - -195 - -
- 360							Printed	on 01/10/07		-

Project Name: J-2 RANGE Location:												
Proje	ct Name	: J-2	RANGE						Location:			
North	ning: M	1: 461	7405.90, N	M2: 461	7405.95				Easting: M1: 375507.77, M2	2: 375507.77		
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	vation	ft (MSL)	: M1: 158.31, M2: 158.31 (	@ Top PVC		
Drillir	ng Equip	ment: [	Rotosonic	Drill		We	ell Deptl	h ft (BG	S): M1: 239.50, M2: 180.50			
Drillir	ng Metho	d: Ro	otosonic D	rill		ВН	Depth/	/Diam: 3	29.00 ft (BGS), 6.00 in.	First Water ft (B	3GS): <b>95</b>	
Sam	oling Met	hod: S	Submersib	le Pum	ıp	Sta	rt/End	Date: 1	2/10/04 - 01/06/05	Well Diameter (	(in.): 2.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pro	oject Nu	ımber: 3	35AY5301	Static Water ft (	BTOC): 88.9	1
Logg	ed by: L	Baer	rga Re	eviewed b	y: Larry I	Panr	nell, P	G	Completion: Flushmount	Date Measured	: 11/29/05	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval  /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conducti 2 6	70	USCS Class		Lithologic Description and Associated Lithographic s	Symbol	Well Construction Diagram	Elevation (ft msl)
-0											M1 M2	160 -
-							GW		GRAVEL: Dense grade fill placed price	or to boring.		1
- - -5							SM		SAND: 7.5Y 4/3 brown, fine grained, sand, little fine angular gravel, cobbles	little medium s, some silt, damp	200000000000000000000000000000000000000	155 -
-							ML		SILT: 2.5Y 5/4 light olive brown, little coarse sand, trace medium sand, dam		200000000000000000000000000000000000000	
- - 10 -							SW		SAND: 2.5Y 5/4 - 2.5Y 7/4 light olive yellow, medium grained, little coarse s sand, little coarse angular to sub-roun fine angualr to sub-rounded gravel, codry	and, little fine ded gravel, little	200000000000000000000000000000000000000	150 -
- - - 15									No sample, no recovery.			145 -
- -							SP		SAND: 2.5Y 5/4 light olive brown, me coarse sand, little fine sand, little coar rounded gravel, little fine angular to su cobbles, trace silt, dry	se angular to sub-	300000000000000000000000000000000000000	
- - 20 -												140 -
- - 25 -										200000000000000000000000000000000000000	135 -	
- - - 30												130 -

Proj	ect Name	: J-2 RANGE				Location:		
Nort	thing: M1	1: 4617405.90, N	л2: 4617	405.95		Easting: M1: 375507.77, M2: 375507.77		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS C	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-						No sample, no recovery.	300000000000000000000000000000000000000	-
- 35 - - - - - 40					SW	GRAVELLY SAND: 10YR 5/4 yellowish brown, medium grained, little coarse sand, trace fine sand, little coarse gravel, some fine angular to sub-rounded gravel, trace silt, dry	9M	125 -
- - - - 45 -							000000000000000000000000000000000000000	115 -
- - - 50					SP	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace to little fine sand, trace coarse sub-	-	110 -
- - - 55					SW	GRAVELLY SAND: 10YR 5/4 yellowish brown, medium grained, little coarse sand, trace fine sand, little coarse gravel, some fine angular to sub-rounded gravel, trace		105 -
- - - 60					SP	silt, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine sub-angular gravel, dry	-	100 -
- - - 65					SP	No sample, no recovery.  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace fine angular to sub-angular gravel, do.		95 -
-						dry		90 -

			RANGE					Location:		
Nort	hing: M		405.90, N	12: 4617	405.95		_	Easting: M1: 375507.77, M2: 375507.77	7	1 -
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	JSCS (		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
70 75 80								SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace fine sub-angular gravel, dry		85 8C
90						SP		Cobbles  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace fine sub-angular gravel, dry		7( <b>¥</b>
95								SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace coarse angular to sub-angular gravel, trace fine angular to sub-angular gravel, trace silt, wet		65
- 105										55

Pioj	ect Name	: J-2 RANGE					Location:		
Nor	thing: M1	1: 4617405.90, M	2: 461740	5.95			Easting: M1: 375507.77, M2: 375507.77		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Constructio Diagram	Elevation (ft msl)
- - 110 -							No sample, no recovery.		50 -
- - - 115 -					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace to little fine sand, trace coarse sub-angular to sub-rounded gravel, trace fine sub-angular to sub-rounded gravel, trace silt, cobbles, wet		45 -
- - 120 -								In-situ Soil	40 -
- - 125 -								In-eliu Sol	35 -
- - 130 -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular to sub-rounded gravel, wet		30 -
- - 135 -									- 25 - - -
- - 140 -									20 -
- - - 145 -						/	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, wet  No sample, no recovery.		15 –



Proie	ect Name	e: .I-2	RANGE				1V1 VV -	Location:		
-			405.90, M	12: 4617	405.95			Easting: M1: 375507.77, M2: 375507.77		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	J/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - 155 - 160 - 165						SM	- - -	SAND: 2.5Y 6/4 light yellowish brown, fine sand, some medium sand, trace to little silt (fine sand alternating with medium sand in 2 ft. layers)	Bentonite Seal Action (Section 1997)	10
- 170 								No sample, no recovery.		-10 - -10 - -
- 175 - - - 180 - -						SP	_	SAND: 10YR 5/4 yellowish brown, medium sand, little fine sand, trace coarse sand, little coarse angular gravel, small angular cobbles, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, faintly laminated, wet	BM 00#	-15 - -20 - -25



Broi	oct Name	: J-2 RANGE				171 77 -	Location:		
		1: 4617405.90, N					Easting: M1: 375507.77, M2: 375507.77		
INOIT			WZ. 4617405.98	<b>5</b>			Easung. W1.379907.77, W2.379907.77		<u> </u>
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		ma Log CPS ductivity 6 10	USCS Class		Lithologic Description Con	Well struction agram	Elevation (ft msl)
- - - - - - - - - - - - - - -					ML		FINE SANDY SILT: 5Y 4/1 dark gray, trace clay, wet, massive structure		-30
- - 205 - - - - - 210							inassive structure		-45 - 45 - - - -50 -
- - - 215 - - - - -					SM ML SP		SAND: 2.5Y 5/2 grayish brown, fine sand, trace to little silt, wet  SAND: 5Y 4/1 dark gray, fine grained, some silt, wet  SANDY SILT: 5Y 5/2 olive gray, fine sand, trace clay, wet  SAND: 7.5YR 6/6 reddish yellow, medium grained, some fine sand, trace silt, wet 6 inch layer of coarse sand, some gravel, cobbles at 221 feet		-55 - - - - -60 -
- - - - 225							No sample, no recovery. Probable fine sand flowed out of core barrel.		-65 -

Broi	oct Name	≕ J-2 RAN	ICE				141 44	Location:		
		1: 4617405.9		7405 05				Easting: M1: 375507.77, M2: 375507.77		
			10, IVIZ. 401	403.93				Lasting. W11. 373307.77, W2. 373307.77		T 📻
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma CPS Conduct 2 6	S	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 230 235 235						SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little silt, wet	200 No.	-70 - - -75 -
- - - 240 - - - - - 245										-80 - - - - - - -85 -
- - - 250 -					-			No sample, no recovery. Probable fine sand flowed out of core barrel.	-	-90 - -
- - 255 - - -										-95 - - - - - -100 -
- 260 - - -										-

Proje	ect Name	: J-2 RANGE			, ID.	101 00	Location:			$\neg$
		1: 4617405.90, M	12· 4617	405 95			Easting: M1: 375507.77, M2: 375507.77			
			12. 4017	+00.00						<u></u>
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	) SOSI		Lithologic Description and Associated Lithographic Symbol		Well onstruction Diagram	Elevation (ft msl)
- 265 - -									-	-105 -
- - 270 -									-	-110 -
- - 275 -					SP		SAND: 2.5Y 5/4 ligt olive brown medium sand, some fine sand, trace coarse sand, trace to little coarse angular gravel, cobbles, trace silt, wet		-	-115 - - -
- - 280 -								In-situ Soil	-	-120 -
- - 285 -									-	-125 - - -
- - - 290 -						-	SAND: 2.5Y 5/2 grayish brown, medium grained, trace to little coarse sand, trace to little fine sand, trace fine angular to sub-angular gravel, trace silt, wet		-	-130 -
- - 295 -					GM		SANDY GRAVEL: 5Y 4/2 olive gray, fine sub-angular		-	-135 -
- - - 300 -					sw		gravel, little coarse sub-rounded to sub-angular gravel, cobbles, some coarse sand, little medium sand, trace fine sand, little silt, wet  GRAVELLY SAND: 5Y 4/2 olive gray, medium grained,		-	-140 – -

Proje	ect Name	: J-2	RANGE					Location:		
Nort	hing: M1	: 4617	405.90, M	2: 4617	405.95			Easting: M1: 375507.77, M2: 375507.77		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 305 -						SM	to	ttle coarse sand, trace fine sand, little coarse angular o sub-angular gravel, little fine angular to sub-angular gravel, trace silt, wet  SAND: 5Y 5/2 olive gray, medium grained, little coarse and, little fine sand, trace coarse sub-angular gravel, ttle fine sub-angular gravel, little silt, wet		-145 — - -
- 310 -							: : :    	lo sample, no recovery.	-	-150 - - - -
- - 315 -						SM	: :   s	SAND: 5Y 5/2 olive gray, fine grained, trace coarse and, trace medium sand, trace fine angular gravel, little ilt, wet	-	- -155 - - -
- - 320 -						ML		SILT: 5Y 5/2 olive gray, trace fine sand, trace fine sub- ingular gravel, damp	-	-160 <del>-</del> -
- - 325 -						SPSM	s g	SAND: 5Y 5/2 olive gray, coarse sand, little medium and, little fine sand, little fine angular to sub-angular travel, trace to little silt, wet  SILT: 5Y 5/2 olive gray, trace fine sand, trace fine sub-ingular gravel, dry	Bentonite Seal	- -165 – - -
- - - 330 -						BR	.∏∏∏ / E	Bedrock	-	- -170 - - -
- - - 335 -								Notes: 1. Well Depths WW-362M1: 239.50 ft (BGS) WW-362M2: 180.50 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths WW-362M1: 10.00 ft WW-362M2: 10.00 ft 4. Screen Intervals WW-362M1: 229.00 - 239.00 ft (BGS) WW-362M2: 170.00 - 180.00 ft (BGS) 5. Slot Size 0.010 in. 5. Surface Elevation: 159.43 ft (MSL)	_	- -175 - - - -
- - 340								Printed on 01/10/07	-	-180 –

							O 1.	,	. VV -303			
Proje	ct Name	: J-2	RANGE						Location:			
North	ning: M	1: 46	18130.69,	M2: 4	618130	.74, \$	S: 461	8130.	79 Easting: M1: 375057.48,	M2: 375057.4	8, S: 37505	7.48
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL	): M1: 156.41, M2: 156.41,	S: 156.41 @	Top PVC	
Drillir	ng Equip	ment: [	Dual Air R	otary		W	ell Deptl	h ft (BC	GS): M1: 286.01, M2: 215.81	, S: 103.32		
Drillir	ng Metho	d: DU	JAL ROTA	\RY		BH	H Depth/	/Diam:;	316.00 ft (BGS), 8.00 in.	First Water ft (B	3GS): 100	
Sam	pling Me	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date: (	01/10/05 - 04/12/05	Well Diameter	(in.): 2.50	
Cons	t. Materi	als S	CH 80 P\	/C		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	BTOC): 86.8	9
Logg	ed by: S	. Mixa	an Re	viewed b	y: Larry	/ Pan	nell		Completion: Flushmount	Date Measured	: 12/13/05	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamm CF 20 4 Conduc	PS 70	USCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)
-											M1 M2 S	-
-0 - -							SM		SILTY SAND: 2.5Y 4/3 olive brown, f some medium sand, silts, moist	ine grained sand,		155 -
- -5 - - -							SP		SAND: 2.5Y 5/4 light olive brown, fine medium sand, trace silt, dry	e grained, some		- 150 - -
- 10 - - - -												- 145 - - - -
- - -									SAND: 2.5Y 6/4 light yellowish brown trace to little medium sand, trace silt,			140 -
- 20 - -									trace to inthe medium sand, trace sit,	ury		135 -
- - 25 - -												130 -
- 30 -												125 -
- - 35 -											SW P	120 -

Pro	ject Name	e: J-2 RANGE				Location:		
No	rthing: M	1: 4618130.69,	M2: 4618130.74, S	: 4618	130.79	Easting: M1: 375057.48, M2: 375057.	.48, S: 37505	57.48
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description nd Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 40 45 - 45					S	AND: 2.5Y 5/4 light olive brown, fine grained, little nedium sand, trace subangular gravel, trace silt, dry	200000000000000000000000000000000000000	115 -
- - - 50 -					S	AND: 2.5Y 5/3 light olive brown, fine grained, little nedium sand, trace coarse sand, trace silt, dry		105 -
- 55 - - - - 60								100 -
- 65 -					S	AND: 2.5Y 5/4 light olive brown, fine grained, little parse sand, some medium sand, trace silt, dry		90 -
- 70 - - - - 75							# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	85 - -
- - - 80					iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	AND: 2.5Y 5/4 light olive brown, fine grained, trace to ttle coarse sand, some medium sand, trace to little fine ubangular gravel, trace silt, dry	In-altu Soil	80 - - - - 75 -



Proje	ect Name	: J-2 R	ANGE						Location:	
Nort	hing: M	1: 46181	30.69,	M2: 46	18130.74	l, S: 4	4618	130.7	Easting: M1: 375057.48, M2: 375057.48, S: 37505	7.48
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma L CPS Conductiv 2 6	-	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- - - 85 -										70 -
- - 90 - -									Bentonite Seal	65 -
- 95 - -									SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, some fine sand, trace fine subrounded gravel, trace silt, moist  SAND: 2.5Y 4/3 olive brown, fine grained, little medium sand, trace to little fine subangular gravel, trace to little silt, wet	60 -
- 100 - -									SAND: 2.5Y 4/3 olive brown, fine grained, little medium sand, trace to little fine subangular gravel, trace to little silt, wet	55 - -
- - 105 - -										50 -
- 110 - 110										45 -
- - 115 - -									SAND: 2.5Y 5/3 light olive brown, coarse grained, some medium sand, little fine sand, little fine subangular gravel, trace to little silt, wet	40 -
- - 120 -										35 -
- 125 -						Ş	SM		SILTY SAND: 2.5Y 4/3 olive brown, fine grained sand, trace to little medium sand, silts, wet	30 -



Proie	ect Name	e: J-2 RANGE				141 44	Location:	$\neg$
			M2: 46	518130.74. S	3: 4618	3130.7	Easting: M1: 375057.48, M2: 375057.48, S: 375057	7.48
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	J/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class			Elevation (ft msl)
			_					╣
- - 130								25 -
- - 135 -					SP		SAND: 2.5Y 5/3 light olive brown, medium grained, some fine sand, trace subrounded fine gravel, trace silt, wet	20 -
- 140 								15 -
- - 145 - -						_	SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace to little silt, wet	10 -
- 150 -							Inelin Soli	5-
- 155 -						_	SAND: 2.5Y 5/3 light olive brown, fine grained, little medium sand, trace to little silt, wet	0-
- 160 -								-5 <del>-</del>
- 165 - -								-10 <del>-</del> -10 -
- 170 -					SM		SILTY SAND: 2.5Y 4/3 olive brown, fine grained sand, silts, wet	-15 <del>-</del> -15 -



Proje	ect Name	e: J-2 RANGE				Location:	
-			M2· 46	S18130 74 S	S: 4618	130.79 Easting: M1: 375057.48, M2: 375057.48, S: 3	75057 48
			1012. 40			30.74 =35.39 MT. 070007.40, MZ. 070007.40, C. 0	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log	1 0	We	me notion (ft msl)
<b>∓</b>	w Cc	Sample Int Recovery Sample Id	PID/FID	CPS Conductivity	Ś	Lithologic Description Constru	ıction   🧸
Dep	Blo	Sar /Rec Sar	PD	2 6 1	Š	and Associated Lithographic Symbol Diagra	ım <u>@</u>
- 175							
							-20 -
-							
180					SP	SAND: 2.5Y 4/3 olive brown, fine grained, little medium sand, some silt, wet	
ŀ							-25 -
[							
- - 185							
-					SM	SILTY SAND: 2.5Y 4/3 olive brown, fine grained sand,	-30
						trace medium sand, silts, wet	
·							
- 190 -							-35
-							
-							
- 195						SILTY SAND: 2.5Y 5/3 light olive brown, fine grained sand, little medium sand, silts, wet	
[							-40
-							
200							<b>/</b> 1
ŀ						Bentonite Seal	-45 -
-							<b>×</b> 1
205							-
-							-50 –
-							
- 210 -						bw on	-55 –
-							
ļ						5w oor	]
- 215							
-							-60 -
}					SP	SAND: 2.5Y 5/3 light olive brown, medium grained,	1
ſ					1	trace coarse sand, some fine sand, little silt, wet	<del>'''</del>

Proje	ect Name	e: J-2	RANGE					Location:	
Nort	hing: M	1: 4618	3130.69,	M2: 46	318130.74,	S: 4618	3130.79	Easting: M1: 375057.48, M2: 375057.48, S: 375057.	.48
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Lo CPS Conductivi 2 6	S		Well Lithologic Description Construction and Associated Lithographic Symbol Diagram	Elevation (ft msl)
- 220 -									- 65 –
- 225 -								-7	70 -
- 230								-7	- - - 75 –
- - 235 -							1	SAND: 2.5Y 5/4 light olive brown, medium grained, race to little coarse sand, some fine sand, little silt, wet  -8	80 -
- - 240 - -								SAND: 2.5Y 5/4 light olive brown, fine grained, trace	- 85 –
- 245 								coarse sand, some medium sand, little silt, wet	90 -
- 250 - -							[333333] t	SAND: 2.5Y 5/3 light olive brown, medium grained, race coarse sand, some fine sand, trace to little fine to coarse subangular gravel, trace silt, wet	95 -
- 255 -								-10	00 -
- 260 -						SM		SILTY SAND: 2.5Y 5/6 light olive brown, fine grained and, silts, wet	05 -
- 265								1181//	-

Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M	1: 4618130.69,	M2: 46	518130.74, S	: 4618	3130.79	Easting: M1: 375057.48, M2: 375057.4	8, S: 37505	7.48
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 270								tonite Seal	-110 - - - - - -
- - - 275 -								<u> </u>	-120 - -
- 280 285						S	ULTY SAND: 2.5Y 4/4 olive brown, fine grained sand, lilts, wet		-125 -
- 290 -							ILTY SAND: 2.5Y 4/3 olive brown, fine grained sand, ace medium sand, silts, higher plasticity observed, wet		-130 - - - -135 -
- 295 - - -							ace medium sand, siits, nigher piasticity observed, wet	-	- -140 - - -
- 300 - - - - 305								Inesitu Soil	-145 - - - - -
- 310					SP	Si	AND: 2.5Y 5/1 gray, medium grained, trace coarse and, little fine sand, trace silt, wet  AND: 2.5Y 4/1 dark gray, medium grained, trace to		-150 - - - - -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M			M2: 46	318130.74, S	: 4618	3130.79	Easting: M1: 375057.48, M2: 375057.4	8, S: 37505	7.48
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 315						BR	, , , , , , , , , , , , , , , , , , ,	ittle coarse sand, little fine sand, trace to little fine to coarse subangular gravel, trace silt, wet  BEDROCK: granitic bedrock encountered		- - - - 160 –
- 320 - 32								Notes: 1. Well Depths MW-365M1: 286.01 ft (BGS) MW-365M2: 215.81 ft (BGS) MW-365S: 103.32 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths	-	- - - 165 – -
- - 325 - -								MW-365M1: 10.00 ft MW-365M1: 10.00 ft MW-365S: 10.00 ft 4. Screen Intervals MW-365M1: 275.54 - 285.54 ft (BGS) MW-365M1: 275.52 - 215.52 ft (BGS) MW-365M2: 205.52 - 215.52 ft (BGS) MW-365S: 92.86 - 102.86 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 156.16 ft (MSL)	-	- 170 – -

			RANGE						Location:			
			8464.87, N		8464.92				Easting: M1: 374321.37, M			7
			D. L. Mah			EI	evation	ft (MSL	): M1: 152.52, M2: 152.52,	M3: 152.52 @	Top PVC	
Drillin	g Equip	ment: [	Dual Air R	otary		W	ell Depti	h ft (BC	GS): M1: 225.50, M2: 185.50	), M3: 155.50		
Drillin	g Metho	d: Dl	JAL ROTA	ARY		BI	H Depth/	/Diam:	310.56 ft (BGS), 8.00 in.	First Water ft (B	3GS): 100	
Samp	ling Met	thod: S	Stainless S	Steel Ba	ailer	St	art/End I	Date:		Well Diameter	(in.): 2.50	
Const	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	(BTOC): <b>79.3</b>	2
Logge	ed by: S	. Mixa	an Re	eviewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 09/26/2006	3
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CI 20 4 Condu	na Log PS 45 70 Ictivity 6 10	SCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)
											M1 M2 M3	- 155 - -
-0 -5 - -10							SP		SAND: 2.5Y 3/3 dark olive brown, fin coarse sand, little medium sand, trace subangular gravel, trace silt, moist			150 -
- 15 - - - - -									SAND: 2.5Y 5/4 light olive brown, fine little coarse sand, trace to little medius subrounded gravel, trace silt, dry			140 -
- 25 									SAND: 2.5Y 4/3 olive brown, medium coarse sand, some fine sand, little fine gravel, trace silt, dry	n grained, trace e subrounded	-	130 -
- - -												120 -

Proj	ect Name	: J-2 RAN	GE				Location:		
Nort	thing: M	1: 4618464.87	7, M2: 461	8464.92, M3: 4	61846	4.97	Easting: M1: 374321.37, M2: 374321.37	, M3: 374321	.37
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 35 - -							SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace silt, dry	#1 WG	- - - - 115 –
- - 40 - -									110 -
- 45 - -									105 -
- 50 - -									100 -
- 55 - - - - 60									- - 95 - -
- - - - 65							SAND: 2.5Y 6/4 light yellowish brown, fine grained, race coarse sand, some medium sand, trace silt, dry		90 -
- - - - 70									- - 85 – -
- - - - 75									80 -



Proj	ect Name	e: J-2 F	RANGE					Location:		
Nor	thing: M	1: 46184	64.87, M	2: 4618	464.92, M3: 4	61846	4.97	Easting: M1: 374321.37, M2: 374321.37,	M3: 374321.3	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 80 - 85 - 90 - 95 - 100 - 105 - 110								SAND: 2.5Y 6/4 light yellowish brown, medium grained, ittle coarse sand, some fine sand, trace to little fine subrounded gravel, trace silt, very moist  SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, little silt, wet	In-stut Soil	75 - 70 - 65 - 60 - 55 - 6
- - 115 -								SAND: 2.5Y 6/4 light yellowish brown, coarse grained, some medium sand, trace to little fine sand, trace to little fine subangular gravel, trace silt, wet		40 -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1		464.87, M	12: 4618	464.92, M3: 4	61846	4.97	Easting: M1: 374321.37, M2: 374321.37,	M3: 374321.37	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 120 - 125 - 130 - 135 - 135								SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, little silt, wet		35
- 140 - - - - - 145 -								SAND: 2.5Y 5/3 light olive brown, medium grained, some fine sand, trace subrounded fine gravel, trace silt, wet	Bentonite Seal	- - 10 - - - - 5-
- - 150 - - - - - 155 -							_	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, some medium sand, trace silt, wet	800 Wg	0-

Proje	ect Name	e: J-2	RANGE						Location:		
Nort	hing: M		464.87, M	12: 4618	464.92,	M3: 40	61846	4.97	Easting: M1: 374321.37, M2: 374321.37,	M3: 374321.	37
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma CF Conduc 2 6	PS ctivity	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 160 -											-
- - 165 - -										In-altu Soil	-10 - - - - -15 -
- 170 -										Bentonite Seal	-20 -
- 175 - - - - 180								_	SAND: 2.5Y 4/3 olive brown, fine grained, trace to little medium sand, some silt, wet	Bw one	-25 <del>-</del>
- - - 185								_	SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, some medium sand, trace fine subrounded gravel, trace silt, wet		-30 - - -
- - - 190										<b>!</b>	-35 - - - -
- - - - 195							SM		SILTY SAND: 2.5Y 5/3 light olive brown, fine grained sand, trace to little medium sand, silts, wet		-40 <del>-</del> -40 -
- 200										In-situ Soil	-45 - - -

Proje	ect Name	e: J-2 l	RANGE					Location:		
Nort	hing: M		164.87, M	12: 4618	464.92, M3: 4	61846	4.97	Easting: M1: 374321.37, M2: 374321.37,	M3: 374321.37	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	ē	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 - - - - 210 -									Bertonite Seal	-50 - -55 - -55 - -60 -
- 215 - - - - - 220 -						SP		AND, 0.5V C// light collegists because greating engine	Box one	-65 
- 225 						31	ti	AND: 2.5Y 6/4 light yellowish brown, medium grained, ace to little coarse sand, little fine sand, little fine ubangular gravel, trace silt, wet		-70 - - - - -75 -
- 230 - - - - - 235 -										-80 —
- - - 240 -										-85 <del>-</del> -

Proje	ect Name	≕ J-2 R	ANGE					171 77	Location:	
				l2: 4618	464.92, M	3: 46	18464	4.97	Easting: M1: 374321.37, M2: 374321.37, M3: 374321.3	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	J/FID	Gamma L CPS Conductiv 2 6	_og	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	n (ft msl)
- - 245 -										-9U - - -
- 250										-95 - - - -
- - 255									SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, some medium sand, trace to little silt, wet	-100 - -100 -
- - - 260										-105 - - - -
- 265										-110 - - - - -
- 270									In-altu Soil	-115 - - -
- - 275							ML		SANDY SILT: 2.5Y 5/6 light olive brown, fine grained sand, silts, very moist	-120 - - - -
- 280										-125 - - - - -
285										-130 <b>-</b>



Proje	ect Name	: J-2 R	ANGE					Location:		
Nort	hing: M1	: 461846	64.87, M	2: 4618	464.92, M3: 4	61846	4.97	Easting: M1: 374321.37, M2: 374321.37,	M3: 374321.3	7
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 290						SM		SILTY SAND: 2.5Y 5/3 light olive brown, fine grained sand, trace medium sand, silts, very moist  SANDY SILT: 2.5Y 5/6 light olive brown, very fine grained sand, silts, very moist		-135 - - -135 - - -
- - 295 - -										-140 - - - - -145 -
- 300 - - -						GP	00000000000000000000000000000000000000	SANDY GRAVEL: 2.5Y 5/2 grayish brown, fine to coarse sands, fine to coarse subangular gravel, trace silt, wet		- - - -150 –
- 305 - - - - - 310						BR		BEDROCK: granitic bedrock encountered		-155 — -155 —
- - - 315 -								Notes: 1. Well Depths MW-366M1: 225.50 ft (BGS) MW-366M2: 185.50 ft (BGS) MW-366M3: 155.50 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths	-	- -160 - - - -
- - 320 -								MW-366M1: 10.00 ft MW-366M2: 10.00 ft MW-366M3: 10.00 ft 4. Screen Intervals MW-366M1: 215.00 - 225.00 ft (BGS) MW-366M2: 175.00 - 185.00 ft (BGS) MW-366M3: 145.00 - 155.00 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 153.13 ft (MSL)	-	-165 - - - -

Proie	ct Name	: J-2	RANGE						Location: 12 Farrell Drive,	Sandwich			
			7600.24, N	/12: 461	7600.29				Easting: M1: 374990.52, M2				
			D. L. Mah			Elevatio	n ft (M	SL):	M1: 153.97, M2: 153.97 (				
			Rotosonic						): M1: 215.45, M2: 177.44				
			tosonic D						25.00 ft (BGS), 8.00 in.	First Water ft (B	GS): {	 35	
			Submersib		p				/01/05 - 03/17/05	Well Diameter (			
			CH 80 P\		•				5AY5301	Static Water ft (			3
-	ed by: L				y: Larry F				Completion: Flushmount	Date Measured			
			9		Gamma I								(Is
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CPS	70 Class			Lithologic Description and Associated Lithographic \$	Symbol	Cons	Vell truction gram	Elevation (ft msl)
	Blc Pe	Sa /Re	S		2 6	10 5					Dia	gram	Ele
-											N	11 M2	155 -
-0						GW		∆ F	FILL: Dense-grade fill			$\overline{\Box}$	
-						SMS	w  :	c	GRAVELLY SAND: 10YR 5/4 yellowis grained sand, little coarse sand, trace coarse subangular to subrounded grav subangular to subrounded gravel, cob	fine sand, some /el, little fine			
-						SP			silt, damp	bles, trace to little			150 -
-5 -						SMS	w	∴\ t	SAND: 10YR 6/8 brownish yellow, me race coarse sand, trace to little fine sa race silt, dry				-
								∵ g	GRAVELLY SAND: 2.5Y 5/4 light oliversimples and, little coarse sand, trace some coarse subangular to subrounde subangular to subrounded gravel, cob	to little fine sand, ed gravel, little fine	333333333		-
- 10						SP			silt, dry				145 -
-								li s	SAND: 10YR 6/6 brownish yellow, me ittle coarse sand, trace fine sand, trac subangular to subrounded gravel, little o subrounded gravel, trace silt, dry	e coarse			
}													140 -
- 15 - -						SMS	w :	∵ g ∴ t	GRAVELLY SAND: 2.5Y 5/4 light oliving prained sand, little coarse sand, trace race little coarse subangular to subrous owne fine subangular to subrounded grace to little silt, dry	to little fine sand, unded gravel,			- - -
- - 20 -						SP		s	SAND: 2.5Y 6/4 light yellowish brown some coarse sand, trace fine sand, tra subangular to subrounded gravel, trac	ice to little fine	9		135 -
								1	No sample, no recovery		#2 W		130 -
- 25 - -						SP		f f	SAND: 10Y 5/4 to 6/4 light olive brown medium grained, little coarse signavel, little fine subangular to subrour cobbles, trace silt, dry	and, trace to little subrounded			-
- 30								\/ s	SAND: 2.5Y 7/4 pale yellow, medium	grained, little			125 -



Proj	ect Name	: J-2 RANGE				Location: 12 Farrell Drive, Sandwich		$\neg$
Nor	thing: M1	1: 4617600.24, N	12: 4617	600.29		Easting: M1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - - - - - - - - - - - - - - - -					SMSW SP	coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, trace silt, dry  No sample, no recovery  SAND: 2.5Y 4/4 olive brown, medium grained, trace to little coarse sand, trace to little fine sand, little coarse subangular to subrounded gravel, trace to little fine subangular to subrounded gravel, trace to little silt, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, trace to little coarse sand, trace fine sand, trace fine subangular to subrounded gravel, cobbles, trace silt, dry  SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, trace to little fine sand, little coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, cobbles, dry  No sample, no recovery	00000000000000000000000000000000000000	120 -
- - - 50 -						grained, little coarse sand, little fine sand, little coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, cobbles, trace silt, dry  No sample, no recovery		105 -
- 55 -					SMSW	SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace to little fine sand, little coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, cobbles, trace to little silt, dry		100 -
- - 60 -					SP	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace subangular to subrounded gravel, trace silt, dry  No sample, no recovery		95 -
- - 65 -					SW	SAND: 10YR 5/4 yellowish brown, medium grained, little coarse sand, trace fine sand, trace to little coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, trace silt, dry		90 -
-					SP	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace coarse subangular		



Proje	ect Name	e: J-2 RANGE					Location: 12 Farrell Drive, Sandwich		
Nort	hing: M1	1: 4617600.24, M	12: 4617600.29	)			Easting: M1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		ma Log CPS luctivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 70 -							to subrounded gravel, trace fine subangular to subrounded gravel, trace silt, dry		85 -
- - 75 -					SPSM		SAND: 2.5Y 5/6 light olive brown, fine grained, little coarse sand, some medium sand, trace to little coarse angular to subrounded gravel, little fine angular to subrounded gravel, little silt, dry		80 -
- - 80					SP		SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, some fine sand, trace fine subangular gravel, trace silt, dry		75 - -
- - - 85					SP	,	No sample, no recovery  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, little fine sand, trace to little coarse subangular to subrounded gravel, trace to little		¥ ] - 70 - ⊈ -
- - - 90					<b>3</b> F		fine subangular to subrounded gravel, trace to little silt, dry/damp  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace fine subangular to subrounded gravel, damp/wet		65 -
- - - 95					SP		No sample, no recovery  SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, trace fine sand, trace coarse		60 -
- - 100							subangular gravel, trace fine subangular gravel, trace silt, wet  SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, some fine sand, trace coarse subangular gravel, trace fine subangular gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, trace coarse		55 -
- - - 105 -							subangular gravel, trace to little fine subangular gravel, trace silt, wet  No sample, no recovery	In-stru Soi	50 -

Proje	ect Name	: J-2 RANGE					Location: 12 Farrell Drive, Sandwich		
Nort	hing: M1	1: 4617600.24, M	2: 4617	600.29			Easting: M1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 110 -									45 -
- 115 - -					SP		SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, trace coarse subangular gravel, trace fine subangular gravel, cobbles, trace silt, wet		40 -
- 120 -						_	SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace to little fine sand, little coarse subangular gravel, little fine subangular gravel, trace silt, wet		35 -
- 125 - - -							No sample, no recovery		25 -
- 130 - -							SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, trace coarse subangular		20 -
- 135 - -					SP SPSM SP		to subrounded gravel, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular gravel, trace silt, wet  SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, little medium sand, trace to little silt, wet  SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to		15 –
- 140 - - -							subrounded gravel, cobbles, trace silt, wet		10 -

Proje	ect Name	: J-2	RANGE				Location: 12 Farrell Drive, Sandwich		
Nort	hing: M1	1: 46176	600.24, M	12: 4617	600.29		Easting: M1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	) SOSI	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 145 -							SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular gravel, trace silt, wet		-
- 150 -							No sample, no recovery		5-
- 155 - - - - 160 -						SP	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, trace silt, wet	Bentonite Seal	-5 -
- 165 -							SAND: 10YR 7/6 yellow, medium grained, some coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, trace silt, wet	X	-10 <del>-</del>
- 170 -							No sample, no recovery	NOON MODE	-15 <del>-</del>
- 175 -						SM	SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, little fine sand, little silt, wet		-
- 180 -						SW	 GRAVELLY SAND: 2.5Y 5/6 light olive brown, coarse grained sand, little medium sand, trace fine sand, little coarse subangular to subrounded gravel, some fine angular to subrounded gravel, trace silt, wet		-25 <del>-</del> -



Proje	ect Name	e: J-2 l	RANGE					Location: 12 Farrell Drive, Sandwich		
Nort	hing: M	1: 46176	600.24, M	12: 4617	600.29			Easting: M1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 185 -										-30 -
- - 190 -								No sample, no recovery	In-etht Soil	-35 - - -
- - 195 -						sw		GRAVELLY SAND: 2.5Y 5/6 light olive brown, coarse grained sand, little medium sand, trace fine sand, little coarse subangular to subrounded gravel, some fine angular to subrounded gravel, cobble, trace silt, wet	-	-40 - - -
- 200								GRAVELLY SAND: 2.5Y 5/6 light olive brown, coarse grained sand, little medium sand, trace fine sand, little coarse subangular to subrounded gravel, some fine subangular to subrounded gravel, cobble, trace silt, wet	Bertronite Seal	-45 - - -
- 205							1-1-1-1-	GRAVELLY SAND: 2.5Y 5/6 light olive brown, coarse grained sand, little medium sand, trace fine sand, little coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, cobble, trace silt, wet		-50 -
- 210								No sample, no recovery	000 MOD	-55 - -
- - 215						SPSM		SAND: 2.5Y 6/4 light yellowish brown, coarse grained	-	-60 -
- 220								sand, little medium sand, trace fine sand, trace coarse subangular to subrounded gravel, little fine angular to subrounded gravel, trace to little silt, wet		-65 -

Proj	ect Name	: J-2 RANGE			Location: 12	2 Farrell Drive, Sandwich		
Nor	thing: M1	1: 4617600.24, N	M2: 4617600.29		Easting: M	1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Lo CPS L Conductivi 2 6	, S		ogic Description ed Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 225 - - - - 230					No sample, no re	covery		-70 - -70 - - -75 -
- - - 235				SP	ittle coarse sand	pale yellow, medium grained, trace to , trace to little fine sand, trace fine inded gravel, trace silt, wet		-80 - -
- - - 240				GP SW SP	SANDY GRAVEL subangular to sub to subrounded gr. sand, trace fine s  GRAVELLY SAN sand, trace coars subangular to sub	2.: 2.5Y 6/6 olive yellow, coarse prounded gravel, little fine subangular avel, little coarse sand, little medium and, cobbles, trace silt, wet  D: 5Y 5/2 olive gray, medium grained be sand, little fine sand, little coarse prounded gravel, little fine subangular		-85 - -
- - - 245 -					SAND: 2.5Y 7/4	pale yellow, medium grained, trace to little fine sand, trace silt, wet		-90 - -
- - 250 -								-95 - -
- - 255 - -				SW	medium grained s	D: 2.5Y 6/4 light yellowish brown, sand, little coarse sand, little fine sand, ngular to subrounded gravel, little fine unded gravel, little silt, wet	-	100 -



Proje	ect Name	: J-2 RANG	Ε			Location: 12 Farrell Drive, Sandwich		
Norti	hing: M1	1: 4617600.24	M2: 4617	7600.29		Easting: M1: 374990.52, M2: 374990.52		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Constructi Diagram	aj
- - 260 -					SC	CLAYEY SAND: 2.5Y 5/1 gray, fine grained sand, trace to little coarse sand, little medium sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, little silt, dry		-105 - - -
- - 265 -					ML	SILT: 2.5Y 6/4 light yellowish brown, trace coarse grained sand, little medium sand, little fine sand, little fine gravel, trace clay, dry/damp	In-stitu Soil	-110 - -110 - - -
- - 270 -					SPSM	SAND: 10YR 5/6 yellowish brown, medium grained, trace coarse sand, little fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, trace to little silt, wet		-115 <del>-</del> -1
- - 275					SP	No sample, no recovery  SAND: 2.5Y 6/4 to 7/4 light yellowish brown to pale yellow, medium grained, trace coarse sand, little fine sand, trace coarse subangular to subrounded gravel,		-120 - - -
- - - 280 -						trace fine subangular to subrounded gravel, cobbles, trace silt, wet		-125 - - -
- - 285 -								-130 - -130 - -
- - 290 -					SM	SAND: 2.5Y 7/4 to 7.5Y 7/8 pale yellow to reddish yellow, medium grained, trace coarse sand, little fine sand, trace coarse subangular to subrounded gravel, trace to little fine subangular to subrounded gravel, cobbles, little silt, wet		-135 <del>-</del> -
- - 295 -					SP	No sample, no recovery  SAND: 2.5Y 6/3 light yellowish brown, fine grained, trace coarse sand, trace to little medium sand, trace silt, wet		-140 – - -

Proje	ect Name	e: J-2	RANGE					Location: 12 Farrell Drive, Sandwich			
Norti	hing: M1	l: 46176	600.24, M	2: 4617	600.29			Easting: M1: 374990.52, M2: 374990.52			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well onstruction Diagram	Elevation (ft msl)
- - 300								SAND: 10YR 5/2 grayish brown, medium grained, trace to little coarse sand, trace fine sand, trace to little fine angular gravel, trace silt, wet			- -145 – -
- - 305 -								angular graver, trace six, wet			-150 - - -
- - 310 -						GM		GRAVEL: 2.5Y 4/3 olive brown, coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace coarse sand, little medium sand, little fine sand, little silt, trace clay, wet			-155 <b>-</b>
- - - 315						GM	-0	No sample, no recovery  GRAVEL: 2.5Y 4/1 dark gray, fine angular to subangular gravel, little coarse angular to subangular gravel, little coarse sand, little medium sand, trace fine sand, little silt, trace to little clay, wet	<b>X</b> -		-160 <b>-</b>
- - - 320 -						BR		BEDROCK: Gray crystalline rock with green olivine crystals	itu Soil Bentonite Seal		-165 - - - -
- - 325 -							x.< x x.< x		Ĭ.		-170 - - -
- - - 330 -								Notes: 1. Well Depths MW-367M1: 215.45 ft (BGS) MW-367M2: 177.44 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-367M1: 10.00 ft MW-367M2: 10.00 ft 4. Screen Intervals MW-367M1: 205.15 - 215.15 ft (BGS) MW-367M1: 10.01 ft MW-367M1: 10.01 ft MW-367M1: 205.15 - 215.15 ft (BGS)			- -175 - - - -
- - 335								5. Slot Size 0.010 in. 6. Surface Elevation: 154.13 ft (MSL)			-180 -



Proj	ect Name	e: <b>J</b> -2	2 RANGE				Location: 12 Farrell Drive, Sandwich		
Nor	thing: M	1: 461	7600.24, M	12: 4617	600.29		Easting: M1: 374990.52, M2: 374990.5	2	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
							Printed on 01/10/07		

								), IVI	W-300					
Proje	ct Name	: J-2	RANGE						Location:					
North	ing: M	1: 461	8192.82, <b>N</b>	Л2: 4618	3192.88,	M3:	461819	2.92	Easting: M1: 374619.14, M2	2: 374619.14, N	<b>/</b> 13:	3746	619.1	4
Drillin	g Contra	actor:	D. L. Mah	er Co.		Ele	evation	ft (MSL	): M1: 171.28, M2: 171.28,	M3: 171.28 @	DΈ	op F	PVC	
Drillin	ıg Equipi	ment: [	Dual Air R	otary		W	ell Deptl	h ft (BG	S): M1: 247.62, M2: 213.26	, M3: 165.72				
Drillin	g Metho	d: Dl	JAL ROTA	\RY		Bŀ	H Depth/	/Diam: 3	350.65 ft (BGS), 8.00 in.	First Water ft (B	GS	): 11	0	
Samp	oling Met	hod: S	Stainless S	Steel Ba	ailer	Sta	art/End	Date: (	04/12/05 - 05/13/05	Well Diameter (	in.):	2.	50	
Cons	t. Materi	als S	CH 80 P\	/C		Pr	oject Nu	ımber: ;	35AY5301	Static Water ft (	вто	DC):	100.7	71
Logge	ed by: L	Baer	ga Re	eviewed b	y: Larry	y Pan	nell, P	G	Completion: Flushmount	Date Measured:	: 03	3/27/	06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample ID	PID/FID	CF 20 4 Condu	5 70	USCS Class		Lithologic Description and Associated Lithographic s	Symbol		We onstru Diagr	uction	Elevation (ft msl)
-												M1 M:	2 M3	-
-0 -							PT	72721	Topsoil, loam, roots	/	ſ			170 -
- - -5							SP		SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, trace gravel, dry					-
- - -														165 - -
- 10 - -									GRAVELLY SAND: 2.5Y 7/4 pale yell grained sand, little coarse sand, trace coarse angular to subrounded gravel, to subrounded gravel, dry	fine sand, little	-			160 -
- - 15 - -														155 –
- - 20 - -									GRAVELLY SAND: 2.5Y 7/4 pale yell grained sand, little coarse sand, trace coarse angular to subrounded gravel, to subrounded gravel, trace silt, dry	fine sand, little				150 -
- - 25 - -											#1 WG			145 -
- -30 - - -									GRAVELLY SAND: 2.5Y 5/6 light oliv grained sand, little coarse sand, trace coarse angular to subangular gravel, s to subangular gravel, trace silt, dry	fine sand, trace				140 -
- 35 - -							СМ		COBBLES					135 -
-							SP		SAND: 2.5Y 7/4 pale yellow, medium coarse sand, trace fine sand, trace fine					-
		1 1	ı	1			1	neredddddd	112.00 Jana, made into Jana, made int	- 39 10	1 1	ner 124	1.4 1.4	1

Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: M1	l: 4618′	192.82, M	2: 4618	192.88, M3: 4	618192	2.92	Easting: M1: 374619.14, M2: 374619.14, M3:	374619.1	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description Con	Well struction agram	Elevation (ft msl)
- 40 -								subrounded gravel, trace silt, dry		130 -
- - - 45 - -										125 -
- - 50 - -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine angular to subangular gravel, dry		120 -
- 55 -										115 -
- 60 - - - - - 65										110 -
- 70							_			105 -
- - - - 75								SAND: 2.5Y 7/4 pale yellow, medium grained, some coarse sand, trace to little fine sand, trace fine angular to subrounded gravel, trace silt, dry		100 -
- - - - 80							_	SAND: 2.5Y 7/4 pale yellow, medium grained, trace to		95 -
- - - 85								little coarse sand, trace to little fine sand, trace fine subangular to subrounded gravel, trace silt, dry		90 -
										85 – -



Proje	ect Name	∷ J-2 I	RANGE					Location:		
Nort	hing: M1		92.82, M	12: 4618	192.88, M3: 4	61819	2.92	Easting: M1: 374619.14, M2: 374619.14,	M3: 374619.1	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 90 - - - - - 95								SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, dry		- 80 – - -
- - - 100							_	SAND: 2.5Y 7/4 pale yellow, medium grained, trace coarse sand, some fine sand, trace fine angular to subrounded gravel, trace silt, dry	In-situ Soil	75 - - - - 70 -
- - 105 - -								SAND: 2.5Y 7/4 pale yellow, medium grained, trace to little coarse sand, little fine sand, trace fine angular to subrounded gravel, trace silt, dry		65 -
- 110 - - - - - 115						SM		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine angular to subangular gravel, little silt, wet	₹	60 -
- - 120 -						SP		GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, coarse grained sand, trace medium sand, little coarse subangular to subrounded gravel, some fine angular to subrounded gravel, trace silt, wet		50 —
- 125 - 125										- 45 – -
- 130 -						SPSM		SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, little fine sand, trace coarse angular to subrounded gravel, trace fine angular to subrounded gravel, trace to little silt		40 -
- 135 - - -										35 – -



Proje	ect Name	e: J-2	RANGE					Location:			
Nort	hing: M1	l: 4618	192.82, M	12: 4618	192.88, M3: 4	61819	2.92	Easting: M1: 374619.14, M2: 374619.14,	M3: 374	1619.14	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	We Constru Diagr	uction	Elevation (ft msl)
- 140 145								SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, little fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace to little silt, wet			30 -
- 150 - 155								SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, trace to little coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace to little silt, wet	Bentonite Seal	XXXXXI	20 -
- 160						GW		GRAVEL: 2.5Y 5/4 light olive brown, coarse angular to subrounded gravel, some fine angular to subrounded gravel, little coarse sand, trace medium sand, trace fine sand, wet  GRAVEL: 2.5Y 5/6 light olive brown, fine angular to subrounded gravel, little coarse angular to subrounded	#00 Wg		15 - - - - 10 -
- 165 -								gravel, little coarse sand, little medium sand, trace fine sand, wet			- - - 5 –
- 170 -						SM		GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium grained sand, little coarse sand, little fine sand, little coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace to little silt, wet			- 0- -
- 175 - - - - 180								GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium grained sand, little coarse sand, trace fine sand, trace to little coarse angular to sburounded gravel, little fine angular to subrounded gravel, trace silt, wet			-5 - -5 -
- - - - 185						SW		GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium grained sand, little coarse sand, trace fine sand, trace to little coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet	Insitu Soil		-10 - - - - -15 -
-											]



Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M1	1: 4618192.82, M	2: 4618	192.88, M3: 4	61819	2.92	Easting: M1: 374619.14, M2: 374619.14,	M3: 374619.1	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 190 -									-20 -
- - 195 - -					GP		SANDY GRAVEL: 2.5Y 6/4 light yellowish brown, fine angular to subrounded gravel, some coarse angular to subrounded gravel, little coarse sand, trace to little medium sand, trace fine sand, wet	Bentonite Seal	-25 -
- 200							SANDY GRAVEL: 2.5Y 6/4 light yellowish brown, fine angular to subrounded gravel, little coarse angular to subrounded gravel, little coarse sand, trace to little medium sand, wet		-30 -
- 205 - - -					SP		GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, coarse grained sand, little medium sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, wet	Bw one	-35 -
- 210 - - -							GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, medium grained sand, little coarse sand, trace fine sand, trace to little coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, wet		-40 <del>-</del>
- 215 - - -									-45 - -
- 220 -					SM		SAND: 2.5Y 5/4 light olive brown, very fine grained, some silt, trace clay, wet	In-situ Soil	-50 -
- - - 225					SW		GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium grained sand, little coarse sand, trace fine sand, trace to little coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace to little silt, trace clay, wet		-
-					SM	$  \cdot \cdot \cdot  $	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse snd, little medium sand, some silt, trace fine angular to subrounded gravel, wet		-55 - - -
- 230 - - -					ML		SANDY SILT: 5Y 5/3 olive, trace to little coarse grained sand, little medium sand, little fine sand, trace fine angular to subrounded gravel, little clay, wet	Bentonite	-60 <del>-</del>
- 235 - -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, some silt, wet		-65 -



Proje	ect Name	≕ J-2 RAN	GE			1/1 //	Location:		
				8192.88, M3: 4	61819	2.92	Easting: M1: 374619.14, M2: 374619.14,	M3: 374619.	14
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	PID/FID	Gamma Log CPS Conductivity 2 6 10	JSCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	n (ft msl)
- - 240 -							SAND: 5Y 5/2 olive gray, fine grained, trace coarse sand, little medium sand, trace fine angular to subrounded gravel, some silt, trace clay, wet	BW 008	-70 -
- - 245 - - - - - 250									- -75 - - -
- - - - 255 -							SAND: 5Y 5/2 olive gray, fine grained, trace to little coarse sand, little medium sand, trace to little fine angular to subrounded gravel, some silt, wet		-80 <del>-</del>
- - 260 - - -							SAND: 5Y 5/2 olive gray, fine grained, trace coarse sand, little medium sand, little fine angular to subrounded gravel, some silt, wet	-	-90 - -90 -
- 265 - - - - - 270									-95 – - - -
- - - - 275							SAND: 2.5Y 5/6 light olive brown, fine grained, trace to little coarse sand, trace medium sand, trace to little coarse angular to subrounded gravel, trace to little fine angular to subrounded gravel, some silt, trace clay, wet		-100 <del>-</del>
- - - - 280							SAND: 2.5Y 5/6 light olive brown, very fine grained, some silt, trace to little clay, wet	-	-105 - - - -110 -
- - - 285 -							Some Siit, trace to little clay, wet		-110 <del>-</del>

Proje	ect Name	≕ J-2 RA	NGE					Location:		
Nort	hing: M1	1: 4618192	.82, M2:	46181	192.88, M3: 4	618192	2.92	Easting: M1: 374619.14, M2: 374619.14,	M3: 374619.1	4
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id		Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 290 - - - - - 295								SAND: 2.5Y 5/6 light olive brown, very fine grained, ittle silt, wet		-120 - -120 - -1
- 300 								SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, trace medium sand, little silt, wet	In-situ Soil	-125 - -125 - - -130 -
- 305									-	-135 – -135 –
- 310 - - - - 315						SC		CLAY: based on drilling air pressure, no distinct soil cuttings from this depth		-140 - - - - -145 -
- - - 320 -						ML	·/·//	SILT: 2.5Y 5/6 light olive brown, some fine grained sand, trace clay, wet  CLAY: based on drilling air pressure, no distinct soil cuttings from this depth		-150 —
- 325 - - -										-155 —
- 330 - - - - 335										-160 <del>-</del> -1
-						SM		SAND: 2.5Y 6/4 light yellowish brown, fine grained,	-	-165 -

Project Name: J-2 RANGE	Location:
Northing: M1: 4618192.82, M2: 4618192.88, M3: 4618192.9	Easting: M1: 374619.14, M2: 374619.14, M3: 374619.14
Depth ft (BGS) Blow Counts Per 6 Inches Sample Interval //Recovery Sample Id D/FID O O O O O O O O O O O O O O O O O O O	Lithologic Description  And Associated Lithographic Symbol  Construction Diagram  B  U  State  Well  Diagram
- 340 - 345 - 350 - 350	trace medium sand, some silt, trace clay, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some silt, little clay, wet  GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium grained sand, little coarse sand, little fine sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, little silt, wet  BEDROCK: fine angular gravel sized, pink and black fragments of granitic rock  -180
- 355 -	Notes: 1. Well Depths MW-368M1: 247.62 ft (BGS) MW-368M2: 213.26 ft (BGS) MW-368M3: 165.72 ft (BGS)  -185 -
- 360	2. SCH 80 PVC Screens 3. Screen lengths MW-368M1: 10.00 ft MW-368M2: 10.00 ft MW-368M3: 10.00 ft 4. Screen Intervals MW-368M1: 237.35 - 247.35 ft (BGS) MW-368M2: 202.73 - 212.73 ft (BGS) MW-368M3: 155.50 - 165.50 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 171.43 ft (MSL)

						L'		); IVI	W-3/2				
Proje	ct Name	: J-2	RANGE						Location:				
North	ning: D:	: 4618	3810.40,	M1: 46	18810.4	15			Easting: D: 375466.33, M	1: 375466.33			
Drillir	ng Contra	actor:	D. L. Mah	er Co.		EI	evation	ft (MSL	): D: 173.35, M1: 173.35 @	Top PVC			
Drillir	ng Equipr	ment: [	Dual Air R	otary		W	ell Deptl	n ft (BG	SS): D: 311.12, M1: 283.58				
Drillir	ng Metho	d: Dl	JAL ROTA	ARY		ВІ	H Depth/	Diam: (	First Water ft (B	BGS): 110			
Samp	oling Met	hod: S	Stainless S	Steel Ba	ailer	St	art/End I	Date: (	05/16/05 - 06/14/05	Well Diameter (	Well Diameter (in.): 2.50		
Cons	t. Materia	als S	CH 80 P	/C		Pr	oject Nu	ımber:	35AY5301	Static Water ft (	BTOC): 104.	25	
Logg	ed by: T.	. Woo	dson Re	eviewed b	y: Larr	y Pan	nell, P	G	Completion: Flushmount	Date Measured	: 03/14/06		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	CI 20 2 Condu	na Log PS 45 70 activity 6 10	SCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)	
-											D M1	175 - -	
-0 - - - -5							SP		SAND: 2.5Y 6/4 light yellowish brown little coarse angular gravel, little fine s trace silt, dry	ı, medium grained, ubangular gravel,		170 -	
-5 - - - -10											200000000000000000000000000000000000000	- 165 - -	
- - - 15									SAND: 2.5Y 6/4 light yellowish brown trace fine subangular gravel, trace silt	ı, medium grained, , moist	- 1	160 -	
- - - 20 -											200000000000000000000000000000000000000	155 -	
- - - 25							SM		SILTY SAND: 2.5Y 5/6 light olive brofine grained sand, silts, dry	wn, medium to		150 -	
- - - - 30							SP		SAND: 2.5Y 6/4 light yellowish brown trace silt, dry to moist	ı, medium grained,		145 -	
- - -									SAND: 2.5Y 6/4 light yellowish brown trace silt, dry to moist	n, medium grained,		140 -	
- 35 - - -											5M 2#	135 -	



LOC ID: WW-372	
Project Name: J-2 RANGE Location:	
	, M1: 375466.33
Depth ft (BGS)  Recovery  Sample Interval  Sample Interval  Sample Interval  Countrivity  Conductivity  Conductivity  Conductivity  Conductivity  Associated Pitches  Tithologic Description  and Associated Fitches  and Associated Fitches	0
-40 -45 -50 -50 -55 -66 -66 -70 -75 -86	own, medium grained, trace to little fine  125 -  125 -  115 -  110 -  105 -

Proje	ect Name	: J-2 RAN	 GE				Location:		
Nort	hing: D:	4618810.4	D, M1: 46	18810.45			Easting: D: 375466.33, M1: 375466.3	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 90 - -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, trace fine sand, trace to little subangular to subrounded gravel, trace silt, dry to moist		80 -
- 95 - - - - 100									75 -
- - - - 105							SAND: 2.5Y 6/6 olive yellow, medium grained, trace coarse sand, trace fine sand, trace fine subangular to	<b>Y</b>	70 -
- - - 110						_	subrounded gravel, trace silt, moist  SAND: 2.5Y 6/6 olive yellow, medium grained, trace to little coarse sand, trace to little fine sand, trace to little fine angular to subrounded gravel, trace silt, wet	-	65 -
- - 115 -									55 –
- - 120 - -							SAND: 10YR 5/4 yellowish brown, medium grained, trace coarse sand, trace to little fine sand, trace angular to subrounded fine gravel, little silt, wet		50 -
- 125 - - - - - 130									45 -
- - - 135							SAND: 10YR 5/4 yellowish brown, medium grained, trace coarse sand, trace to little fine sand, trace angular to subrounded fine gravel, trace silts, wet		40 -
-									35 <del>-</del>



Proje	ect Name	: J-2 RANGE					Location:		
Nort	hing: D:	4618810.40, N	/11: 46188 <i>1</i>	10.45			Easting: D: 375466.33, M1: 375466.33	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		amma Log CPS onductivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 140 - -							SAND: 2.5Y 7/3 pale yellow, medium grained, trace to little coarse sand, trace fine sand, trace fine subangular to subrounded gravel, trace silt, wet		30 -
- 145 - - - - - 150						_	SAND: 10YR 5/4 yellowish brown, medium grained, trace to little fine sand, trace silts, wet		- - 25 - -
- - - - 155						_	SAND: 10YR 5/4 yellowish brown, medium grained, trace to little coarse sand, trace fine sand, little fine subangular to subrounded gravel, trace silt, wet  SAND: 2.5Y 6/6 olive yellow, medium grained, trace to		20 -
- - - - 160 -						_	little coarse sand, trace fine sand, trace silt, wet  SAND: 2.5Y 5/6 light olive brown, medium grained, some fine sand, trace silt, wet		15 -
- - - 165 -									10 - - - - 5-
- 170 -								ln-altu Sol	- - - - 0-
- - 175 - -							SAND: 2.5Y 5/4 light olive brown, medium grained, trace to little coarse sand, trace fine sand, trace fine angular to subangular gravel, trace silt, wet		-5 -
- - 180 - -							SAND: 2.5Y 6/4 light yellowish brown, coarse grained, some medium sand, trace fine sand, trace to little		-10 -
- - 185 - -							coarse angular to subrounded gravel, trace to little fine angular to subrounded gravel, trace silt, wet		-15 -



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: D:	46188	310.40, N	л л1: 461	8810.45			Easting: D: 375466.33, M1: 375466.33	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 190 - -								SAND: 10YR 5/4 yellowish brown, medium grained, little fine sand, trace silts, wet		-20 -
- - 195 - - -										-25 -
- 200 - - - - 205							_	SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, trace to little silt, wet		-30 -
- - - 210										-35 -
- - - 215 -										-40 <del>-</del>
- - 220 -										-50 -
- - 225 - - -										-55 -
- 230								SAND: 2.5Y 5/6 light olive brown, fine grained, little medium sand, trace fine subangular gravel, trace to little silt, wet		-60 <del>-</del>
- 235 -										-65 -



Droi	oot Name	e: J-2 RANGE				1/1 // -	Location:		$\neg$
-			44. 464.00	10.45					
INOI	шшу. <b>D</b> :	4618810.40, <b>N</b>	VIT: 461881	10.45			Easting: D: 375466.33, M1: 375466.3	<b>3</b>	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		amma Log CPS onductivity 6 10	USCS Class	á	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 240							SAND: 2.5Y 5/6 light olive brown, medium grained,		
- - - 245						S	some fine sand, trace silt, wet		-70 - -
- - - 250									-75 - - -
- - 255 -									-80 <del>-</del>
- - 260							SAND: 2.5Y 5/6 light olive brown, medium grained, some sand, trace fine sand, little fine subrounded gravel, trace silt, wet	-	-85 <del>-</del>
- - 265 -									-90 <del>-</del>
- 270 -						::::::::::::::::::::::::::::::::::::::	SAND: 2.5Y 5/6 light olive brown, medium to coarse grained, trace fine sand, some fine rounded to subangular gravel, trace silt, wet	Bentonite Seal	-95 - - -
- 275							5. 1. 5 1. 1, 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	two	-100 - - - - -
- - 280						::::::::::::::::::::::::::::::::::::::	SAND: 10YR 4/6 dark yellowish brown, medium grained, trace coarse sand, trace fine sand, trace to	-	-105 -
- - - 285						333333 I	ittle fine subrounded to subangular gravel, trace silt, wet		-110 -
t								118///	.115 _

Proj	ect Name	: J-2	RANGE						Location:		
Nor	thing: D:		310.40, N	11: 461	8810.4	5			Easting: D: 375466.33, M1: 375466.3	3	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Condu	na Log PS uctivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 290 - - - -									SAND: 10YR 4/4 dark yellowish brown, medium grained, some coarse sand, trace fine sand, some fine subangular gravel, trace to little coarse subangular gravel, trace silt, wet	Seal In-aliu Soli	- - -120 - -
- 295 - - - - 300										Bentonie	- -125 - - - -
- - - 305 -							GP		GRAVEL: 2.5Y 4/1 dark gray, coarse grained subrounded gravel, little coarse sand, little medium	DIA NOON	-130 - - - -
- - - 310 - -							BR	V. <v< td=""><td>BEDROCK: Granitic metamorphic bedrock, gray, micaceous, fractured, trace signs of iron staining</td><td>-</td><td>-135 - - - -140 -</td></v<>	BEDROCK: Granitic metamorphic bedrock, gray, micaceous, fractured, trace signs of iron staining	-	-135 - - - -140 -
- 315 - -								À.≺.À	Notes:	lis-til	- - -145 –
- 320 - - - - - 325									1. Well Depths MW-372D: 311.12 ft (BGS) MW-372M1: 283.58 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-372D: 10.00 ft MW-372D: 10.00 ft 4. Screen Intervals MW-372D: 300.59 - 310.59 ft (BGS) MW-372M1: 273.05 - 283.05 ft (BGS) 5. Slot Size 0.010 in.		-150 - - -150 - -
-									6. Surface Elevation: 172.56 ft (MSL)  Printed on 11/01/06		-155 -

Project Name: J-2 RANGE Northing: M1: 4618712.55, M2: 4618712.60 Elevation ft (MSL) M1: 178.23, M2: 178.23 @ Top PVC Drilling Equipment: Rotosonic Drill Well Depth ft (BGS): M1: 243.47, M2: 206.92 Drilling Method: Rotosonic Drill Sampling Method: Rotosonic Drill Sampling Method: Submersible Pump Start/End Date: 06/15/05-07/07/05 Well Diameter (n): 2.50 Const. Malerials SCH 80 PVC Project Number: 35AV5301 State Water ft (BGS): 113  Librologic Description Adassociated Lithographic Symbol  Date Measured: 04/25/06  Great State							JC IL	. 111						
Drilling Contractor: D. L. Maher Co.  Elevation fr (MSL): M1: 178.23, M2: 178.23 @ Top PVC  Drilling Equipment: Rotosonic Drill  Weil Depth ft (BGS): M1: 243.47, M2: 206.92  Drilling Method: Rotosonic Drill  BH Depth/Dibm: 352.00 ft (BGS): 6.00 in.  First Water ft (BGS): 113  Sampling Method: Submersible Pump  Start/End Date: 06/15/05 - 07/07/05  Well Diameter (in.): 2.50  Const. Materials SCH 80 PVC  Project Number: 35AY5301  Lithologic Description  GRAVELY SAND: 25Y 44 failure brown, same ordinary and many lithic coarse candill file coarse and. trace reading sand, trace canse and. trace reading sand, trace for candid gravel. Item Bits for particular	Project Na	me: J-2	RANGE						Location:					
Drilling Equipment: Rotosonic Drill Well Depth ft (BGS): M1: 243.47, M2: 206.92  Drilling Method: Rotosonic Drill BH Depth/Diam: 352.00 ft (BGS), 6.00 in. Sampling Method: Submersible Pump Start/End Date: 06/15/05- 07/07/05 Well Diameter (in.): 2.50  Const. Materials SCH 80 PVC Project Number: 35AY5301 Date Measured: 04/25/06  Date Measured: 04/25/06  Static Water ft (BTOC): 107.73 Date Measured: 04/25/06  Lithologic Description and Associated Lithographic Symbol Diagram  Diagram  Diagram  This is a submitted of the month of gravel, trace and make and, little coarse and, little little coarse and, little little coarse and, little little coarse and, l	Northing:	M1: 46	18712.55,	M2: 40	618712	.60			Easting: M1: 374499.33,	M2: 374499.3	3			
Drilling Method: Rotosonic Drill  Sampling Method: Submersible Pump  Start/End Date: 06/15/05 - 07/07/05  Well Diameter (in.): 2.50  Const. Materials SCH 80 PVC  Project Number: 35A/V5301  Logged by D. Melcher  Reviewed by: Larry Pannell, PG  Completion: Flushmount  Gamma Log  COS  COS  COS  COS  COS  COS  COS  CO	Drilling Cor	ntractor:	D. L. Mah	er Co.		Ele	evation t	t (MSL)	: M1: 178.23, M2: 178.23 (	@ Top PVC				
Sampling Method: Submersible Pump  Start/End Date: 06/15/05 - 07/07/05  Well Diameter (in.): 2.50  Const. Materials SCH 80 PVC  Project Number: 35AY5301  Static Water ft (8TOC): 107.73  Date Measured: 04/25/06  Static Water ft (8TOC): 107.73  Date Measured: 04/25/06  Gamma Log Chs Sampling Method: Submersible Pump  Interpolation Flushmount  Methods: Well Methods: Od/25/06  Well Diameter (in.): 2.50  We	Drilling Equ	uipment: [	Rotosonic	Drill		We	ell Depth	nft (BGS	S): M1: 243.47, M2: 206.92					
Const. Materials SCH 80 PVC    Completion	Drilling Met	thod: Ro	otosonic D	rill		BH	l Depth/	Diam: 3	52.00 ft (BGS), 6.00 in.	First Water ft (B	:GS	5): 1	113	
Logged by: D. Melcher  Reviewed by: Larry Pannell, PG  Gamma Log  CPS  Barry B	Sampling N	Method: S	Submersib	le Pum	р	Sta	art/End I	Date: 0	6/15/05 - 07/07/05	Well Diameter (	(in.)	): 2	2.50	
Company   Comp	Const. Mat	terials S	CH 80 P\	/C		Pro	oject Nu	mber: 3	5AY5301	Static Water ft (	ВТ	OC)	: 10	7.73
SP GRAVELLY SAND: 2.5Y 4/4 olive brown, some medium grained sand, some fine sand, little coarse and, little coarse rounded gravel, little fine rounded gravel, little fine subrounded gravel, little fine sand, finace ocarse sand, little coarse subrounded gravel, trace fine flowers and gravel, gravel gravel, little fine subrounded gravel, trace fine flowers and gravel, finace fine flowers gravel final gravel, finace fine flowers gravel final gravel, finace fine flowers gravel finace final gravel, finace fine finace flowers gravel finace final gravel, finace fine finace flowers gravel finace final gravel, finace final gravel finace for final gravel, finace final gravel finace final gravel finace for final gravel, finace final gravel finace final gravel finace for final gravel finace final gra	Logged by:	: D. Meld	cher Re	viewed b	y: Larry	y Pani	nell, P	G	Completion: Flushmount	Date Measured	: 0	4/2	5/06	;
SP GRAVELLY SAND: 2.57 4/4 olive brown, some medium grained sand, some fine sand, little coarse sand, little coarse sand, little coarse sand, trace to make a subrounded gravel, little fine rounded gravel, sand little coarse sand, trace to make a subrounded gravel, sand little coarse sand, trace to make a subrounded gravel, sand little coarse sand, trace to make a subrounded gravel, sand little coarse sand, trace to make a subrounded gravel, sand little sand, sand sand, sand little sand, sand sand, sand little sand sand, sand sand little sand sand little sand sand, sand sand sand sand sand sand sand sand	Depth ft (BGS) Blow Counts Per 6 Inches	Sample Interval	Sample ID	PID/FID	CF 20 4 Condu	PS 5 70 ctivity	USCS Class		•	Symbol		onst	tructio	Elevation (ft msl)
SP GRAVELLY SAND: 2.5Y 4/4 olive brown, some medium grained sand, some fine sand, little coarse sand, little fine subrounded gravel, trace sit, dry  SILTY SAND: 2.5Y 6/4 light veloce brown, fire grained soarse subrounded gravel, dry  SAND: 2.5Y 6/4 light veloce brown, fire grained soarse subrounded gravel, dry  SAND: 2.5Y 6/4 light veloce brown, some and trace one soarse subrounded gravel, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some coarse subrounded gravel, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some dry some subrounded gravel, dry  SAND: 2.5Y 6/4 light veloce brown, some coarse subrounded gravel, trace sit, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some coarse subrounded gravel, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some coarse subrounded gravel, trace fine medium grained, trace coarse soard, little fine subrounded gravel, trace sit, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some coarse subrounded gravel, trace sit, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some grained sand, little fine subrounded gravel, trace sit, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some grained sand, little fine subrounded gravel, trace sit, dry  GRAVELLY SAND: 2.5Y 6/4 light veloce brown, some grained sand, little fine sand, some fine subrounded gravel, trace oil title coarse subangular to rounded gravel, trace oil title fine subrounded gravel, trace oil title coarse subangular to rounded gravel, trace oil title fine subrounded gravel, trac												М	1 M2	- 180 – -
SILTY SAND: 2.5Y 5/4 light lolive brown, fine grained sand, trace coarse sand, trace medium sand, trace coarse sand, trace medium sand, trace coarse subrounded gravel, trace fine subrounded gravel, trace fine subrounded gravel, trace fine subrounded gravel, trace fine sand, trace sold gravel, trace fine sand gravel, trace fine sand sold gravel, trace silt, dry    SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, some medium sand, tittle fine subrounded gravel, trace silt, dry    GRAVELLY SAND: 2.5Y 5/4 light tolive brown, some coarse grained sand, tittle medium sand, tittle fine sand, some fine subrounded to rounded gravel, trace sold the gravel grained sand, tittle medium sand, tittle fine sand, some fine subrounded to rounded gravel, trace to little coarse subrounded gravel, trace fine rounded gravel, trace silt, dry    GRAVELLY SAND: 2.5Y 5/4 light tolive brown, some medium grained sand, tittle fine sand, trace to little coarse subrounded gravel, trace silt, dry    GRAVELLY SAND: 2.5Y 5/4 light tolive brown, some medium grained sand, tittle fine sand, trace to little coarse subrounded gravel, trace silt, dry    GRAVELLY SAND: 2.5Y 5/4 light tolive brown, some medium grained sand, tittle fine sand, trace to little coarse grained sand, tittle fine sand, trace to little coarse subrounded gravel, trace silt, dry    GRAVELLY SAND: 2.5Y 5/4 light tolive brown, some medium grained sand, tittle fine sand, trace to little coarse grained sand, tittle fine sand, trace to little coarse grained sand, tittle fine sand, trace to little coarse grained sand, tittle fine sand, trace to little coarse graine	-0 -								medium grained sand, some fine sand sand, little coarse rounded gravel, little	l, little coarse	<b> </b> [	00000000000		-
SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little chesses sand, trace to little coarse rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/3 light olive brown, some coarse grained sand, some medium sand, trace fine sand, little fine subrounded to rounded gravel, little fine subrounded to rounded gravel, little fine subrounded to rounded gravel, little fine subrounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 6/4 light olive brown, some coarse grained sand, some medium sand, little fine subrounded to rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little enand, little fine subrounded to rounded gravel, trace to little coarse subangular to rounded gravel, trace to little coarse subangular to rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little fine sand, trace to little coarse subrounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, intrace to little coarse subrounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, intrace to little coarse subrounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, intrace to little coarse subrounded gravel, trace silt, dry  160 -	-5								SILTY SAND: 2.5Y 5/4 light olive brown sand, trace coarse sand, trace mediur coarse subrounded gravel, trace fine s	n sand, trace				175 –
coarse grained sand, some medium sand, trace fine sand, little coarse shoulded for nounded gravel, little fine subrounded to rounded gravel, trace silt, dry  SAND: 2.57 6/4 light yellowish brown, fine and medium grained, trace coarse rounded gravel, trace silt, dry  GRAVELLY SAND: 2.57 4/4 light of live brown, some coarse grained sand, some medium sand, little fine sand, some coarse subangular to subrounded gravel, little fine subrounded gravel, trace silt, dry  GRAVELLY SAND: 2.57 4/4 olive brown, some fine subrounded to rounded gravel, trace silt, dry  GRAVELLY SAND: 2.57 4/4 olive brown, some fine subrounded to rounded gravel, trace to little coarse subangular to rounded gravel, trace to little coarse subangular to rounded gravel, trace to little coarse subangular to rounded gravel, trace to little coarse sand, some coarse subrounded gravel, trace fine rounded gravel, trace to little coarse sand, some coarse subrounded gravel, trace fine rounded gravel, trace silt, dry  160 -  GRAVELLY SAND: 2.57 4/4 olive brown, some medium sand, little fine sand, some fine subangular to rounded gravel, trace silt, dry  160 -  GRAVELLY SAND: 2.57 4/4 olive brown, little coarse grained sand, little fine sand, some fine subangular to rounded gravel, trace coarse subrounded gravel, trace silt, dry							SP		little coarse sand, little fine sand, trace rounded gravel, trace fine rounded gravel	to little coarse avel, trace silt, dry				-
grained, trace coarse rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, some coarse grained sand, some medium sand, little fine sand, some coarse subangular to subrounded gravel, little fine sunded gravel, ittle fine sunded gravel, ittle fine sunded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little medium sand, little fine sand, some fine subrounded to rounded gravel, trace to little coarse subangular to rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little fine sand, trace to little coarse sand, some oarse subtrounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, some oarse subtrounded gravel, trace silt, dry  160 -  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little medium sand, little fine sand, some fine subangular to rounded gravel, trace coarse subtrounded gravel, trace silt, dry  155 -	- - 10								coarse grained sand, some medium s sand, little coarse subrounded to roun fine subrounded to rounded gravel, tra	and, trace fine ded gravel, little ace silt, dry				170 - - -
coarse grained sand, some medium sand, little fine sand, some coarse subangular to subrounded gravel, little fine subrounded to rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little fine sand, some fine subrounded to rounded gravel, trace to little coarse subangular to rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little fine sand, trace to little coarse subrounded gravel, trace to little coarse sand, some coarse subrounded gravel, trace fine rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little medium sand, little fine sand, some fine subangular to rounded gravel, trace coarse subrounded gravel, trace silt, dry	-							,	grained, trace coarse sand, trace coar gravel, trace fine rounded gravel, trace	se rounded e silt, dry				165
grained sand, little medium sand, little fine sand, some fine subrounded to rounded gravel, trace to little coarse subangular to rounded gravel, trace silt, dry  160 -  GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little fine sand, trace to little coarse sand, some coarse subrounded gravel, trace fine rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little medium sand, little fine sand, some fine subangular to rounded gravel, trace coarse subrounded gravel, trace coarse subrounded gravel, trace silt, dry	- 15							/	coarse grained sand, some medium s sand, some coarse subangular to sub	and, little fine rounded gravel,				100 -
GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little fine sand, trace to little coarse sand, some coarse subrounded gravel, trace fine rounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little medium sand, little fine sand, some fine subangular to rounded gravel, trace coarse subrounded gravel, trace silt, dry  150 -	-								grained sand, little medium sand, little fine subrounded to rounded gravel, tra	fine sand, some ace to little coarse				- - 160 –
GRAVELLY SAND: 2.5Y 4/4 olive brown, little coarse grained sand, little medium sand, little fine sand, some fine subangular to rounded gravel, trace coarse subrounded gravel, trace silt, dry	- 20 -							_	medium grained sand, little fine sand, coarse sand, some coarse subrounde	trace to little	#1 WG	000000000000000000000000000000000000000		- - 155 –
	-							_	grained sand, little medium sand, little fine subangular to rounded gravel, tra-	fine sand, some		(00000000000000000000000000000000000000		- - 150 –

Proi	ect Name	≕ J-2 RA	NGF			. ID.	141 44	Location:	
-				M2: 46	18712.60			Easting: M1: 374499.33, M2: 374499.33	
Depth ft (BGS)	Blow Counts Per 6 Inches	erval	Sample Id	J/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description  and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)
- 35 - 35 - 40 - 45 50						GP SP	1000 1000 1000	SAND: 2.5Y 6/4 light yellowish brown, fine grained, little coarse sand, little medium sand, trace rounded cobbles, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry  SAND: 2.5Y 6/3 light yellowish brown, fine grained, trace coarse sand, trace medium sand, little fine subrounded gravel, trace to little coarse subrounded gravel, trace rounded cobbles, trace silt, dry  SANDY GRAVEL: 10YR 5/3 brown, coarse subangular gravel, little fine subangular gravel, some fine sand, little medium sand, trace coarse sand, trace silt, dry  GRAVELLY SAND: 10YR 5/4 yellowish brown, some medium grained sand, little coarse sand, little fine subrounded gravel, trace silt, dry  SAND: 2.5Y 5/3 light olive brown, medium grained, some fine sand, little coarse sand, little fine rounded gravel, trace coarse subrounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 4/4 olive brown, some medium grained sand, little coarse sand, little fine sand, little coarse subrounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace silt, dry	145 - - - - - - - - - - - - - - - - - - -
- - - 55 -								GRAVELLY SAND: 2.5Y 4/3 olive brown, fine grained sand, trace coarse sand, trace medium sand, little coarse subangular gravel, little fine subangular to	125 -
- - - 60 -								GRAVELLY SAND: 2.5Y 5/4 olive brown, some medium grained sand, some fine sand, trace coarse sand, some coarse rounded gravel, trace to little fine rounded gravel, trace silt, dry	120 -
- - 65 -								SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry  SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine grained,	115 - - - -



Proj	ect Name	e: J-2 RANGE					Location:		
Nor	thing: M	1: 4618712.55,	M2: 46	318712.60			Easting: M1: 374499.33, M2: 374499.3	33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	6	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 70 -						( C	some medium sand, trace coarse sand, trace to little coarse rounded gravel, trace fine rounded gravel, trace silt, dry		1 IU - - - -
- - 75 -							SAND: 2.5Y 5/3 light olive brown, medium grained, some fine sand, trace coarse sand, little coarse subrounded gravel, trace fine rounded gravel, trace silt, try		105 -
- - 80 -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace to little coarse rounded gravel, trace fine rounded gravel, trace silt, dry		100 -
- - 85 -						iiiiiii	6AND: 2.5Y 6/4 light yellowish brown, fine grained, ittle medium sand, trace coarse sand, trace coarse ounded gravel, trace silt, dry		95 -
- - 90 -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, ittle coarse sand, little fine sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse		90 -
- - 95 -							SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, dry		85 - - -
- - 100							SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, little coarse subangular to subrounded gravel, trace fine subrounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, little coarse		80 -
- - - 105							ounded gravel, trace fien rounded gravel, trace silt, dry GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium grained sand, little coarse sand, little fine sand, some coarse subrounded to rounded gravel, little ine rounded gravel, trace silt, dry  GAND: 2.5Y 6/4 light yellowish brown, fine grained, ittle medium sand, trace coarse sand, trace coarse		75 <b>-</b>

Proje	ect Name	: J-2 RANG	Ξ				Location:		
Nort	hing: M	1: 4618712.55	5, M2: 46	618712.60			Easting: M1: 374499.33, M2: 374499.	33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Constructio Diagram	Elevation (ft msl)
- - - 110							rounded gravel, trace fine rounded gravel, trace silt, dry		▼ 70 - -
- - - 115					SP		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		↓ 65 -
- - - - 120					Sr.		SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet	In-altu Soil	- - 60 - -
- - -									55 -
- 125 - -							GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium grained sand, little coarse sand, little fine sand, little coarse subrounded to rounded gravel, little fine rounded gravel, trace silt, wet		- - - 50 -
- 130 - -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		- - 45 -
- 135 - -						_	SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,		40 -
- 140 -							some medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		35 –

Proje	ect Name	: J-2 RANGE					Location:		
Nort	hing: M	1: 4618712.55,	M2: 46	318712.60			Easting: M1: 374499.33, M2: 374499.3	33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	ā	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 145 - - - - - 150						(1986) II	SAND: 2.5Y 6/4 light yellowish brown, fine grained, ittle medium sand, trace coarse sand, trace coarse ounded gravel, trace fine rounded gravel, trace silt, wet		30 -
- - - 155						s r	SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse ounded gravel, trace fine rounded gravel, trace silt, wet SAND: 2.5Y 6/4 light yellowish brown, fine grained, ittle medium sand, trace coarse sand, trace silt, wet		- 25 - - -
- 160 -									20 -
- 165 -									10 -
- 170 -						,	NO SAMPLE; NO RECOVERY		5-
- 175 - - - - 180 -					SP	t t	SAND: 2.5Y 6/4 light yellowish brown, fine and medium grained, trace coarse sand, trace fine rounded gravel, race silt, wet  SAND: 2.5Y 6/3 light yellowish brown, fine grained, ittle medium sand, trace coarse sand, trace coarse subrounded gravel, trace fine rounded gravel, trace silt,		0-

					LOC		IVI VV -				
Proje	ect Name	∷ J-2 I	RANGE					Location:			
Nort	hing: M		712.55,	M2: 46	318712.60			Easting: M1: 374499.33, M2: 374499.3	33		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well nstruction	Elevation (ft msl)
- - - 185							/  -	wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained,			-5 <del>-</del>
- - - 190								some medium sand, trace coarse sand, trace fine subrounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained, some fine sand, little coarse sand, little rounded gravel, trace to little coarse subrounded to rounded gravel, trace fine subrounded gravel, trace silt, wet  NO SAMPLE; NO RECOVERY	eal		-10 - - - -
- - - 195 -						SPSM		SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse subroudned gravel, trace fine rounded gravel, trace to little silt	Bentonite \$		-15 - - - -
- 200 -						SP	/	SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, wet  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, fine grained sand, little medium sand, trace coarse sand, some coarse rounded gravel, trace fine rounded gravel,	BOON WG		-20 - - -
- - 205 -						ML SP		trace silt, wet  SILT: 2.5Y 5/4 light olive brown, some fine grained sand, trace medium sand, dry  SAND: 5Y 6/3 pale olive, medium grained, little coarse sand, little fine sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet	Off		-25 - ·
- 210							7	SAND: 2.5Y 6/6 olive yellow, medium grained, little fine sand, trace to little coarse sand, trace silt, wet  SAND: 10YR 5/6 yellowish brown, medium grained, little coarse sand, little fine sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet	1 1		-30 - - -
- - 215						SP		SAND: 10YR 5/8 yellowish brown, medium grained, little coarse sand, trace to little fine sand, little coarse rounded gravel, little fine rounded gravel, trace silt, wet NO SAMPLE; NO RECOVERY  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium grained sand, some fine sand, little coarse sand, little coarse rounded gravel, little fine	/		-35 - - - -
- - 220						SM	_	rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet  SAND: 2.5Y 6/6 olive yellow, fine grained, little silt, wet	In-situ Soil		-40 <del>-</del>

Proje	ect Name	: J-2 RANGE					Location:		
		1: 4618712.55					Easting: M1: 374499.33, M2: 374499.3	33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 225					SP	121211	SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet		- -45 - - -
- - - 230					ML		SILT: 2.5Y 5/4 light olive brown, little fine grained sand, trace coarse sand, trace medium sand, little clay, dry  NO SAMPLE; NO RECOVERY	Bentonite Seal	-50 <b>-</b>
- - - - 235					ML				-55 —
- - - - 240					SM ML SP		SILT: 2.5Y 5/4 light olive brown, little fine grained sand, trace coarse sand, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace clay, dry  SAND: 2.5Y 5/5 light olive brown, fine grained, little medium sand, trace coarse sand, little silt, trace coarse rounded gravel, trace fine rounded gravel, wet	20M H008	-60 -
- 240 - - -					31		SILT: 2.5Y 5/4 light olive brown, little fine grained sand, trace coarse sand, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace clay, dry  SAND: 10YR 5/8 yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse		-65 -
- 245 - - -							subrounded gravel, trace fine subrounded to rounded gravel, trace silt, wet; iron staining @ 239' bgs contact  SAND: 2.5Y 6/6 olive yellow, some medium grained sand, some fine sand, trace to little coarse sand, little coarse rounded gravel, trace fine rounded gravel, trace silt, wet		-70 -
- 250 -							GRAVELLY SAND: 2.5Y 5/6 light olive brown, some medium grained sand, little coarse sand, little fine sand, little coarse roudned gravel, little fine rounded gravel, trace rounded cobbles, tace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace coarse		-70 - - -
- - - 255							subrounded to rounded gravel, trace fine subrounded to rounded gravel, trace silt, wet  SAND: 2.5Y 6/3 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, wet		-75 - -
-							SAND: 2.5Y 6/6 olive yellow, fine and medium grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained,		-80 -

Proje	ect Name	e: J-2	RANGE						Location:		
Nort	hing: M		712.55,	M2: 46	18712.60	0			Easting: M1: 374499.33, M2: 374499	33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma CPS Conduct 2 6	;	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	(low #) a cito; cl
260									some fine sand, little coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		
265									SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, trace fine rounded gravel, trace silt, wet		-8
									SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, little fine sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, wet		
270									SAND: 2.5Y 6/4 light yellowish brown, medium grained, little fine sand, trace to little coarse sand, little coarse roudned gravel, trace fine rounded gravel, trace silt, wet		-9
275								200000000	NO SAMPLE; NO RECOVERY		-9
							SP		SAND: 2.5Y 6/6 olive yellow, medium grained, some fine sand, trace to little coarse sand, little coarse roudned gravel, trace fien rounded gravel, trace silt, wet		
80								<i>y</i>	SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse sand, trace fine rounded gravel, trace silt, wet		-10
									SAND: 2.5Y 5/6 light olive brown, medium grained sand, little coarse sand, little fine sand, little fine rounded gravel, trace to little coarse rounded gravel, trace silt, wet		
85									SAND: 2.5Y 6/6 olive yellow, fine grained, some medium sand, trace coarse sand, trace rounded gravel, trace fine rounded gravel, trace silt, wet		-10
									SAND: 2.5Y 5/6 light olive brown, fine grained, trace coarse sand, trace medium sand, trace silt, wet  SAND: 10YR 5/8 yellowish brown, fine and medium		
:90									grained, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		-11
									SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace silt, wet		-11
295									SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace silt, wet		

Proje	ect Name	: J-2 RAN	NGE				Location:		
Nort	hing: M	1: 4618712	2.55, M2: 4	618712.60			Easting: M1: 374499.33, M2: 374499	.33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	1	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 300									-120 - - -
- 305									- -125 - - -
- - 310 -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace medium sand, trace silt, wet; iron staining @ 310' bgs		-130 <del>-</del> -130 -
- 315 -					ML	/-	SAND: 5Y 4/3 olive, fine grained, trace silt, wet SILT: 5Y 4/3 olive, some fine grained sand, dry		-135 - - - - -140 -
- 320					SP ML SP		SAND: 5Y 4/3 olive, fine grained, trace silt, wet  SILTY SAND: 5Y 4/3 olive, fine grained sand, wet  SAND: 5Y 4/3 olive, fine grained, trace silt, wet		-
- 325 -					ML		SILT: 5Y 4/3 olive, some fine grained sand, dry		-145 - - - - -150 -
- 330 -							SILT: 5Y 4/3 olive, little clay, trace fine grained sand, dry		-150 - - -155 -
- 335							SILT: 5Y 5/3 olive, little clay, trace fine grained sand, dry		100



Proje	ect Name	: J-2 R	ANGE						Location:		
Nort	hing: M′	1: 46187	12.55,	M2: 46	18712	.60			Easting: M1: 374499.33, M2: 374499.3	33	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Condu	PS	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 340									SILT: 5Y 4/1 dark gray, some fine grained sand, trace clay, dry		-160 – -160 –
- - - 345							SM		GRAVELLY SAND: 2.5Y 4/4 olive, little coarse grained sand, little medium san, little fine sand, little coarse subrounded to rounded gravel, little fine subrounded to rounded gravel, little silt, trace clay, dry;	Toming 5	- -165 – - -
- - 350 -							BR	A	BEDROCK: Top of bedrock @ 347' bgs	In-ailu Soil	-170 - - - - -
- - 355 - - -									Notes: 1. Well Depths MW-381M1: 243.47 ft (BGS) MW-381M2: 206.92 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-381M1: 10.00 ft MW-381M2: 10.00 ft 4. Screen Intervals		-175 - - - - -180 -
- 360 -									4. Screen Intervals MW-381M1: 232.94 - 242.94 ft (BGS) MW-381M2: 196.39 - 206.39 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 178.22 ft (MSL)  Printed on 11/01/06		-

			DANOE						Lacation.				
_			RANGE	10, 461	0001 01	MO	464922	11.26	Location:	0. 274402 02	12. 2	74402.0	
			8221.26, N		8221.31,				Easting: M1: 374192.92, M				92
			D. L. Mah			_			): M1: 141.25, M2: 141.25,		וע	p PVC	
			Dual Air R			_			is): M1: 185.23, M2: 154.80	, 			
			JAL ROTA						293.50 ft (BGS), 8.00 in.	First Water ft (B	-		
			Stainless S		aller				07/13/05 - 08/03/05	Well Diameter (			
			SCH 80 P\						35AY5301	Static Water ft (			1
Logg	ed by: J.		mings Re	eviewed b	by: Larry	y Par	nell, P	G	Completion: Flushmount	Date Measured	: 05/	01/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Condu	PS 5 70	SCS Class		Lithologic Description and Associated Lithographic	Symbol		Well nstruction iagram	Elevation (ft msl)
- - -0											M	11 M2 M3	
-							SP		SAND: 10YR 4/6 dark yellowish brow grained, trace to little coarse sand, tra sand, trace fine subangular to subrour silt, dry	ce to little fine	A 000000000000000000000000000000000000	Bootstaata	140 -
-5 -									GRAVELLY SAND: 7.5Y 4/6 strong b grained sand, trace to little fine sand, some fine angular to subrounded grav subangular gravel, trace silt, dry	ittle coarse sand,			- 135 -
- - - 10									BOULDERS: Granite boulders (pinkis	sh gray in color)			- - 130 –
- - - - 15							GP	00000000000000000000000000000000000000	GRAVEL: 10YR 5/4 yellowish brown, subangular to subrounded gravel, son subrounded gravel, some fine sand, trasand, trace to to little coarse sand, tra	ne fine angular to ace medium	-		-
-							SP		SAND: 2.5Y 6/6 olive yellow, medium coarse sand, little fine sand, trace sub subrounded gravel, trace silt, dry				125 - - -
- 20 -													120 – -
- - 25 - -									SAND: 2.5Y 5/6 light olive brown, me trace to little coarse sand, trace to little to little coarse subangular to subround to little subangular to subrounded grav	e fine sand, trace led gravel, trace			- 115 - -
- 30 - -									SAND: 2.5Y 5/6 light olive brown, me coarse sand, trace fine sand, trace to subangular to rounded gravel, trace si	little fine	#1 WG		- 110 - - -



Proje	ect Name	: J-2	RANGE						Location:		
Nort	hing: M1	: 46182	221.26, M	12: 4618	221.31,	M3: 4	61822 <i>°</i>	1.36	Easting: M1: 374192.92, M2: 374192.92, M3	3: 374192	.92
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma CPS Conduc 2 6	S	USCS Class		=:a:io:og.o = ooopao	Well Construction Diagram	Elevation (ft msl)
- - 35 -											- 105 –
- 40 -											100 -
- 45 -									SAND: 10YR 4/4 dark yellowish brown, medium grained, some coarse sand, trace fine sand, some fine subangular to rounded gravel, trace silt, dry		95 -
- 50 - -									SAND: 2.5Y 6/6 olive brown, medium grained, trace to little coarse sand, trace to little fine sand, trace fine subangular to subrounded gravel, trace silt, dry		90 -
- 55 - -											85 - - -
- 60 - -											80 -
- 65 - -									10		75 -
- 70 - - - - 75									SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, trace fine sand, trace silt, moist		70 -



Proj	ect Name	: J-2 RANG	<u> </u>				Location:				$\neg$
Nort	hing: M1	1: 4618221.26	M2: 4618	3221.31, M3: 4	61822	1.36	Easting: M1: 374192.92, M2: 374192.92,	M3:	37419	2.92	2
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol		Well nstruct iagram	ion 1	Elevation (ft msl)
- -											65 -
- 80 -								Bentonite Seal			60 -
- 85 - - -						-	SAND: 2.5Y 5/6 light olive brown, medium grained, some coarse sand, trace to little fine subangular to subrounded gravel, trace silt, wet			₹	55 -
- 90 - -						1	SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, trace to little coarse subrounded gravel, little subrounded to rounded fine gravel, trace silt, wet	BOON WG			50 -
- 95								<b>*</b>			45 -
- 100 - - - - 105						_	SAND: 2.5Y 5/6 light olive brown, medium grained, little coarse sand, trace fine sand, trace to little fine subangular to subrounded gravel, trace silt, wet				40 -
- 103 - - - 110											35 -
- - - - 115							SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, trace fine sand, trace fine subrounded gravel, trace silt, wet				30 -
											25 -



Proje	act Namo	ر. ا ن	RANGE		LOC		101 00 -	Location:		
-				12: 4618	221.31, M3: 4	61822	1.36	Easting: M1: 374192.92, M2: 374192.92,	M3: 374192 9	92
			, 1.20, IV	7010						
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 120 -								SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, trace fine sand, trace to little coarse subrounded gravel, trace fine subangular to subrounded gravel, trace silt, wet	In also Soil	- - 20 - - -
- 125 - -							_	SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, trace fine sand, trace silt, wet		- 15 - - -
- 130 -										- 10 - - -
- 135 - - -							_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace to little fine sand, trace subrounded gravel, trace silt, wet		5- 5- - -
- 140 - - - - 145							_	SAND: 2.5Y 5/6 light olive brown, medium grained, trace coarse sand, trace fine sand, trace silt, wet	Bentonite Sea	0- - - -
- 150							_		DM 1009	-5 - - - -
- - - - 155								SAND: 2.5Y 6/6 olive yellow, fine grained, little medium sand, trace coarse sand, trace silt, wet	Bentonite Sa	-10 - - - - -15 -
-										-



Proje	ect Name	: J-2	RANGE		LOC			Location:		
Nort	hing: M1	l: 4618	221.26, M	l2: 4618	221.31, M3: 4	61822	1.36	Easting: M1: 374192.92, M2: 374192.92,	M3: 374192.92	2
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 160 - -								SAND: 2.5Y 6/6 olive yellow, medium grained, little coarse sand, trace fien sand, little fine subangular to subrounded grave, trace coarse subrounded gravel, trace silt, wet	Insitu Soil	- -20 - -
- 165 -								SAND: 2.5Y 5/6 light olive brown, medium grained, trace to little fine sand, trace coarse sand, trace fine subangular to subrounded gravel, trace silt, wet		-25 - -
- 170 -								SAND: 2.5Y 6/6 olive yellow, medium grained, trace to little coarse sand, trace fine sand, trace to little fine subrounded gravel, trace coarse subrounded gravel, trace silt, wet	Bentonite Seal	-30 - -
- 175 -										-35 -
- 180 - -								SAND: 2.5Y 5/6 light olive brown, medium grained, trace fine sand, trace coarse sand, trace fine subangular to subrounded gravel, trace coarse subrounded gravel, wet	DAN NOOF	-40 - - -
- 185 - - - - - 190										-45 - - -
- 190 - - - - 195								SAND: 5Y 5/3 olive, coarse grained, little medium sand, trace fine sand, trace fine subrounded gravel, trace silt, wet		-50 - -
- 200										-55 - - -
Į.								SAND: 5Y 5/3 olive, coarse grained, little medium		-60 -



Proje	ect Name	≕ J-2 R/	ANGE					Location:		
Nort	hing: M1	1: 461822 <i>°</i>	1.26, M	2: 4618	221.31, M3: 4	61822°	1.36	Easting: M1: 374192.92, M2: 374192.92,	M3: 374192.9	2
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 205 - -								sand, trace fine sand, trace fine subrounded gravel, trace coarse well rounded gravel, trace silt, wet		-65 <del>-</del>
- 210 - 21						GP		GRAVEL: mixed colors (and component 2.5Y 5/3 light olive brown), fine subangular to subrounded gravel, little coarse rounded gravel, some medium grained sand, little coarse sand, trace fine sand, trace silt, wet		-70 <del>-</del>
- 215 -							\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			-75 - -
- 220 -						SP	00000000000000000000000000000000000000	SAND: 2.5Y 5/3 light olive brown, medium grained,		-80 -
- 225								some coarse sand, trace fine sand, trace fine subangular gravel, trace silt, wet		-85 - -
- 230 -										-90 - -
- 235 -										-95 - -
- 240 - -									lo-stut Soil	-100 -



Proje	ect Name	≕ J-2 RANGE					Location:		
Nort	hing: M1	1: 4618221.26, M	2: 4618	221.31, M3: 4	61822	1.36	Easting: M1: 374192.92, M2: 374192.92,	M3: 374192.92	2
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 245 -							SAND: 2.5Y 5/3 light olive brown, medium grained, some fine sand, trace fine subangular gravel, trace silt, wet	-	105 –
- - 250 - -								-	.110 -
- 255 - - -						_	SILTY SAND: 2.5Y 5/6 light olive brown, fine grained sand, trace medium sand, silts, wet	-	- 115 - - -
- 260 - - -								-	- -120 – - -
- 265 - - -								-	- 125 - - -
- 270 - - -					ML		SILT: 2.5Y 5/6 light olive brown, some fine grained sand, wet	-	-130 - - - -
- 275 - - -								-	- -135 - - - -
- 280 - - - -					SPGP	o.,	SAND AND GRAVEL: 2.5Y 5/1 gray, coarse grained sand, coarse angular to subangular gravel (mixed colors), trace to little silt, wet	-	- 140 – - - -

Proje	ect Name	e: J-2	RANGE						Location:		
Nort	hing: M	1: 4618	3221.26, N	12: 4618	221.31,	M3: 4	61822	1.36	Easting: M1: 374192.92, M2: 374192.92,	M3: 374192.9	2
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Condu	PS	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - - 290 - -							BR		BEDROCK: gray very angular to angular fine granitic		-145 - - - - -150 - -
- 295											
- - - 300 - - - - - 305									Notes:  1. Well Depths  MW-388M1: 185.23 ft (BGS)  MW-388M2: 154.80 ft (BGS)  MW-388M3: 96.05 ft (BGS)  2. SCH 80 PVC  Screens  3. Screen lengths  MW-388M1: 10.00 ft  MW-388M2: 10.00 ft  MW-388M3: 10.00 ft  4. Screen Intervals  MW-388M1: 175.18 - 185.18 ft (BGS)  MW-388M2: 144.75 - 154.75 ft (BGS)  MW-388M3: 86.03 - 96.03 ft (BGS)  5. Slot Size 0.010 in.  6. Surface Elevation: 140.91 ft (MSL)		-155 - - - - -160 - - -

Draft Page 1 of 7

Proje	ct Name	· .J-2	RANGE						Location:					
<u> </u>			805.31, M	1: 46188	305.36, M	2: 46	318805	.41	Easting: D: 374983.69, M1:	374983.69, M2	2: 3	374	1983.6	9
Drillir	ng Contra	actor:	D. L. Mah	er Co.		Ele	evation f	t (MSL)	: D: 156.38, M1: 156.38, N	л2: 156.38 @	To	p	PVC	
Drillir	ng Equip	ment: [	Dual Air R	otary		We	ell Depth	n ft (BG	S): D: 324.10, M1: 278.56,	M2: 228.36				
Drillir	ng Metho	d: DU	JAL ROTA	ARY		ВН	l Depth/	Diam: 3	25.42 ft (BGS), 8.00 in.	First Water ft (B	GS	3):	103	
Sam	pling Met	thod: S	Stainless S	Steel Ba	ailer	Sta	art/End I	Date: 0	8/18/05 - 09/20/05	Well Diameter (	(in.)	):	2.50	
Cons	t. Materi	als S	SCH 80 P\	/C		Pro	oject Nu	mber: 3	35AY5301	Static Water ft (	ВТ	ОС	s): 85.9	96
Logg	ed by: L	. Baer	rga Re	eviewed b	y: Larry I	Panı	nell, P	G	Completion: Flushmount	Date Measured	: 0	6/2	22/06	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample ID	PID/FID	Gamma CPS 20 45 Conducti 2 6	70	USCS Class		Lithologic Description and Associated Lithographic s	Symbol	C	Cons	Well structio agram	Elevation (ft msl)
-												D	M1 M2	160 - - -
-0 - - -							SM		SAND: 10YR 5/4 yellowish brown, me little coarse sand, little fine sand, trace to subrounded gravel, trace fine angua gravel, little silt, dry/damp	coarse angular				155 - - -
-5 - - -							SP		SAND: 2.5Y 6/4 light yellowish brown little coarse sand, little fine sand, trace to subrounded gravel, trace fine angul gravel, trace silt, dry	coarse angular				150 - - -
- 10 - - -								_	SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine sand, trace to subrounded gravel, little fine angula gravel, trace silt, dry	ce coarse angular		***************************************		- 145 - - -
- 15 - - -								_	SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine sand, trace subangular gravel, trace silt, dry					- 140 - - -
- 20 -									SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine sand, tra					135 -
- - - 25							GP	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine sand, trace subangular gravel, trace silt, dry	, medium grained,		**************		100 -
								00000000	GRAVEL: Broken-up gravel-sized roc	k fragments		***************************************		130 -
- 30							SP		SAND: 2.5Y 6/4 light yellowish brown trace coarse sand, trace fine sand, trace subrounded gravel, trace silt, dry		#1 WG	***************************************		- 125 - - - -
- 35 - - -								_				*************		120 – 1
- 40 -							SW		GRAVELLY SAND: 10YR 6/4 light ye medium grained sand, little coarse san sand, trace coarse angular to subangufine angular to subangular gravel, trac GRAVELLY SAND: 2.5Y 6/4 light yell	nd, trace fine ular gravel, some e silt, dry		***************************************		115 –

Proje	ect Name	e: J-2 F	RANGE					Location:		
Nort	hing: D:	461880	5.31, M1	: 46188	05.36, M2: 46	318805	.41	Easting: D: 374983.69, M1: 374983.69, M	M2: 374983.6	69
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	) SOSI		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 45 -						GP	o o	medium grained sand, little coarse sand, trace fine sand, coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, dry  GRAVELLY SAND: 2.5Y 6/4 light yellowish brown,		- - - 110 –
- - 50						SP		medium grained sand, little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, dry  SAND: 2.5Y 6/4 light yellowish brown, medium grained,		-
- - - 55 - -								trace to little coarse sand, trace fine sand, trace fine angular to subrounded gravel, trace silt, dry		105 - - - - - 100 - -
- 60 -						SW		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, dry		- 95 – -
- 65 - -						SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, trace fine sand, trace coarse angualr to subrounded gravel, little fine angular to subrounded gravel, trace silt, dry	*	- - 90 – - -
- 70 - - -						SW		SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, dry/damp		- 85 - - -
- 75 - -										- 80 <del>-</del> -
- 80 - -										- 75 - -
- 85 -										▼ 70 -
- 90 - -						SP	1	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet		- 65 - - -
- 95 -										-



Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: D:	4618805.31, M1	: 46188	05.36, M2: 46	18805.	41	Easting: D: 374983.69, M1: 374983.69, M	M2: 374983.69	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
-									60 -
- 100 -					SW				55 - 7
- - 105 - - -					SW		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, wet		50 -
- 110 - -									45 -
- - 115 - - -							SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace to little coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, wet		40 -
- 120 - -									35 -
- - 125 - -					SP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, some fine angular to subrounded gravel, trace silt, wet		30 -
- 130 -									25 - -
- 135 - -							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet		20 -
- 140 - -					075::		SAND: 2.5Y 5/4 light olive brown, medium grained, fine sand, trace silt, wet		15 - 1
- - 145 - -					SPSM		SAND: 2.5Y 5/4 light olive brown, medium grained, trace coarse sand, little fine sand, trace fine angular to subrounded gravel, trace to little silt, wet	thetin (	10 -

Proje	ect Name	: J-2 RANGE					Location:	
Nort	hing: D:	4618805.31, M1	: 46188	05.36, M2: 46	18805.	41	Easting: D: 374983.69, M1: 374983.69, M2: 374983.69	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	-	Well  Lithologic Description  Construction  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- 150 -								- 5-
- - 155 - - -					GPSP		SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet	0-
- 160 - - - - - 165								-5-
- - - 170 - -					SPSM	000000000000000000000000000000000000000	SAND: 2.5Y 5/4 light olive brown, fine grained, little nedium sand, trace to little silt, wet	-10 - - - -15 -
- - 175 - - - - - 180								-20 -
-							SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, trace to little silt, wet  SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, trace coarse sand, trace to little silt, wet	-25 -
- - 185 - -							SAND: 2.5Y 5/4 light olive brown, fine grained, some nedium sand, trace coarse sand, trace to little silt, wet	-30 <del>-</del>
- 190 -							SAND: 2.5Y 5/4 light olive brown, fine grained, some medium sand, little coarse sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace to little silt, wet	-35 -
- - 195 - - -					SP	E	SAND: 2.5Y 6/4 light yellowish brown, medium grained, ittle coarse sand, little fine sand, little fine angular to subrounded gravel, trace silt, wet	-40 —
- 200 -								-45 -



Proje	ect Name	e: J-2 RANGE			171 77 -	Location:	
-		4618805.31, M	5.36, M2: 46 <sup>2</sup>	18805.	41	Easting: D: 374983.69, M1: 374983.69, M2: 374983.69	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	Gamma Log CPS Conductivity 2 6 10	USCS Class		Well  Lithologic Description  and Associated Lithographic Symbol  Diagram	Elevation (ft msl)
- - 205 - - - - - 210 -						SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet	-50 - -55 -
- - 215 -				SM		SAND: 2.5Y 5/4 light olive brown, very fine grained, ittle silt, trace clay, wet	-60 -
- 220 -						BM 00s	-65 — -65 —
- 225 - - - - 230							-70 - -
- - - 235							-75 - - - -
- - - 240							-80 - - - - -85 -
- - 245 -				SPSM		SAND: 2.5Y 5/4 light olive brown, fine grained, trace ine angular gravel, trace to little silt, wet	-90 -
- 250 -				0::		SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, trace coarse sand, trace to little fine angular to subrounded gravel, trace to little silt, wet	-95 —
- - 255 -				SM		SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, trace to little coarse sand, trace fine angular to subrounded gravel, little silt, wet	



Proje	ect Name	e: J-2	RANGE					Location:		
Nort	hing: D:		5.31, M1	: 46188	05.36, M2: 46	18805.	41	Easting: D: 374983.69, M1: 374983.69, M	12: 374983.69	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	а	Lithologic Description nd Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 260 - -						SPSM		AND: 2.5Y 5/4 light olive brown, medium grained, little parse sand, little fine sand, trace coarse angular to	Bentonite Seal	-100 - - - -105 -
- 265 - - - - 270 -							SI	ubrounded gravel, trace to little fine angular to ubrounded gravel, trace to little silt, wet		-110 - - - - -115 -
- - 275 - - - - 280							tra	AND: 2.5Y 5/4 light olive brown, medium grained, ace to little coarse sand, little fine sand, trace coarse ngular to subrounded gravel, trace fine angular to ubrounded gravel, trace to little silt, wet		-120 - -120 - - -125 -
- 285 290 						GP	ojo, m	RAVELLY SAND: 2.5Y 6/4 light yellowish brown, ledium grained sand, some coarse sand, trace to little ne sand, little coarse angular to subrounded gravel, tle fine angular to subrounded gravel, trace silt, wet		-130 <del>-</del>
- 295 300						SPSM		AND: 2.5Y 5/4 light olive brown, medium grained, ace coarse sand, some fine sand, trace to little silt, wet	In-eitu Sooi	-140 - - -140 -
- - - - 305 - -							tra	AND: 2.5Y 6/4 light yellowish brown, medium grained, ace coarse sand, some fine sand, trace coarse ngular to subrounded gravel, little fine angular to ubrounded gravel, trace to little silt, wet		-145 - - - -150 - -

Proje	ect Name	: J-2	RANGE					Location:		
North	hing: D:		)5.31, M1:	: 46188	05.36, M2: 46	18805.	41	Easting: D: 374983.69, M1: 374983.69, M	12: 374983.69	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	é	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 31U -						GP	9	GRAVEL: 2.5Y 5/4 light olive brown, angular to subrounded fine gravel, little coarse angular to subrounded gravel, little coarse sand, some medium sand, trace fine sand, trace to little silt, wet		- -155 – -
- - 315 - -						SPSM	s	SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, little coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace to little silt, wet	5M one	- - -160 – -
- 320 - -								BEDROCK: Gray angular gravel and sand sized		- -165 – - -
- 325 - -						BR \		crystalline rock fragments, single lithology		- - -170 – -
- 330 								Notes: 1. Well Depths MW-393D: 324.10 ft (BGS) MW-393M1: 278.56 ft (BGS) MW-393M2: 228.36 ft (BGS) 2. SCH 80 PVC Screens		- - -175 - - -
- 335 - - - - - 340								3. Screen lengths MW-393D: 10.00 ft MW-393M1: 10.00 ft MW-393M2: 10.00 ft 4. Screen Intervals MW-393D: 313.56 - 323.56 ft (BGS) MW-393M1: 268.02 - 278.02 ft (BGS) MW-393M2: 218.16 - 228.16 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 156.51 ft (MSL)		- -180 – - - -

		); IVI VV <b>-</b> 399			
Project Name: J-2 RANGE		Location:			
Northing: M1: 4619565.05, M2: 4619565.10		Easting: M1: 375098.02,	M2: 375098.02		
Drilling Contractor: D. L. Maher Co.	Elevation f	t (MSL): M1: 164.90, M2: 164.9	0 @ Top PVC		
Drilling Equipment: Dual Air Rotary	Well Depth	n ft (BGS): M1: 248.68, M2: 135.	5		
Drilling Method: DUAL ROTARY	BH Depth/	Diam: 324.25 ft (BGS), 8.00 in.	4.25 ft (BGS), 8.00 in. First Water ft (BGS): 11		
Sampling Method: Stainless Steel Bailer	Start/End [	Date: 09/27/05 - 10/24/05	Well Diameter	(in.): 2.50	
Const. Materials SCH 80 PVC	Project Nu	mber: 35AY5301	Static Water ft	(BTOC): 95.93	
Logged by: L. Baerga Reviewed by: Larry F	Pannell, P	G Completion: Flushmount	Date Measured	ı: 07/06/06	
Blow Counts Blow Counts Sample Interval //Recovery Sample ID Sample ID Sample ID Sample ID 6 6 6 7 7 7 8 8 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	Class 07	Lithologic Descripti and Associated Lithograph		Well & Construction Diagram	Elevation (ft msl)
				M1 M2	65 -
	SM	SAND: 2.5Y 6/3 light yellowish brosome coarse sand, little medium signavel, little silt, dry	wn, fine grained, ind, little fine angular		60 -
-5 - - - - -	SP	SAND: 2.5Y 6/3 light yellowish bro little coarse sand, little fine sand, li gravel, trace silt, dry			-
		SAND: 10YR 6/4 light yellowish bigrained, little coarse sand, trace fir angular gravel, little fine angular gr	e sand, trace coarse		55 - - - -
- 15 - - -				15	50 -
-20 -20					45 <b>-</b>
- 25 - 1		SAND: 2.5Y 6/4 light yellowish bro some coarse sand, trace fine sand angular gravel, little fine angular gr	trace coarse	14	40 - - - -
- 30 - 1		SAND: 2.5Y 6/4 light yellowish broughtrace to little coarse sand, trace fin coarse angular gravel, trace to little	sand, trace to little	_	35 -
- 35 - 35		trace silt, dry	3 3.4701,	9M H	30 -
- 40 - 1				12	25 –

								IVI VV			
Proje	ect Name	: J-2 RAN	NGE						Location:		
Nort	hing: M1	l: 4619565.0	05, M	2: 4619	565.10				Easting: M1: 375098.02, M2: 375098.02		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		PID/FID	C Condu	na Log PS uctivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - - 45 -							GP SP		GRAVEL: gravel and broken-up cobbles  SAND: 2.5Y 6/4 light yellowish brown, medium grained,	300000000000000000000000000000000000000	120 -
- 50									trace to little coarse sand, trace fine sand, trace to little coarse angular gravel, trace to little fine angualr gravel, trace silt, dry	300000000000000000000000000000000000000	115 -
- - -									SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular gravel, trace silt, dry	000000000000000000000000000000000000000	110
- 55 - -									SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace coarse angular gravel, trace fine angular gravel, trace silt, dry	-   300000000000000000000000000000000000	110 - - -
- - 60 -										300000000000000000000000000000000000000	105 -
- - - 65 -										300000000000000000000000000000000000000	100 -
- 70									SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine angular to		- 95 -
- - - 75 -									subrounded gravel, trace silt, dry/damp		90 -
- - - 80 -											85 - - -
- - 85 -											80 – 1
- - 90 -											75 - -
- - 95 -										In-situ Soil	70 - <b>¥</b>



			_			171 77			
Proj	ect Name	: J-2 RANC	6E 				Location:		
Nort	thing: M	1: 4619565.05	M2: 4619	565.10			Easting: M1: 375098.02, M2: 375098.02		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Constructio Diagram	Elevation (ft msl)
- - - 100 - - - - - 105							SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, trace coarse angular to subrounded gravel, trace fine angular to subrounded gravel, trace silt, damp		65 -
- - 110 - - - - - 115 - -						_	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, trace fine subangular to subrounded gravel, trace silt, wet		55 - - - - - - - - - - - - - -
- 120 - - - - - 125							SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace to little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, trace fine angular to subrounded gravel, trace silt, wet	Bentonite Seal	40 -
- 130 -						-	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, trace fine sand, little fine angular to subroudned gravel, trace silt, wet	5m one	35 -
- - 135 - -									30 -
- 140 - - - - - 145							SAND: 2.5Y 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, trace coarse angular to subrounded gravel, little fine angular to subrounded gravel, trace silt, wet		20 -
-							SAND: 2.5Y 6/4 light yellowish brown, medium grained, trace coarse sand, trace fine sand, trace fine subangular to subrounded gravel, trace silt, wet		15 -

Proje	ect Name	e: J-2 RANGE					Location:		
Nort	hing: M1	1: 4619565.05, N	л2: 461956	65.10			Easting: M1: 375098.02, M2: 375098.02		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id		Gamma Log CPS Conductivity 6 10	USCS Class	á	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - - - - - 155 - -						t t	SAND: 2.5Y 6/4 light yellowish brown, medium grained, race to little coarse sand, trace fine subangular to subrounded gravel, trace silt, wet		10 -
- 160 - - - - 165 -						s S	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, little fine subangular o subrounded gravel, wet		5-
- - 170 - - - - 175					SPSM		SAND: 2.5Y 5/4 light olive brown, medium grained, race coarse sand, trace fine sand, trace to little silt, wet		-5 - - - -10 - -
- 180 -									-15 <del>-</del>
- 185 -						S t	SAND: 2.5Y 5/4 light olive brown, medium grained, race coarse sand, some fine sand, trace to little silt, wet	Instit	-20 <del>-</del>
- 190 - - - - - 195 -							SAND: 2.5Y 5/4 light olive brown, fine grained, trace coarse sand, little medium sand, trace to little silt, wet		-30 -
- 200					SM		SAND: 2.5Y 5/1 gray, fine grained, trace coarse sand, race medium sand, little silt, wet		-35 <del>-</del>



				LUC		141 44			
		e: J-2 RANGE					Location:		
Nor	thing: M1	1: 4619565.05, N	12: 4619	565.10			Easting: M1: 375098.02, M2: 375098.02		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 -					SP		SAND: 2.5Y 5/2 grayish brown, coarse grained, some medium sand, trace fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, trace silt, wet		-40 <del>-</del>
- - 210 - - -						_	SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, trace to little fine subangular to subrounded gravel, trace silt, wet		-45 - - - - - -50 -
- 215 - - - - - 220							SAND: 10YR 6/4 light yellowish brown, medium grained, some coarse sand, trace fine sand, little fine		-55 -
- - - 225 -							granied, some coarse sand, trace line sand, little line subangular to subrounded gravel, trace silt, wet		-60 <del>-</del>
- - 230 - - -								entonite Sei	-65 <del>-</del>
- 235 - - - - - 240									-70 <del>-</del>
- - - - 245 -					SPSM		SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, trace to little silt, wet	6W 008	-80 -
- - 250 - -							SAND: 2.5Y 5/4 light olive brown, medium grained, some coarse sand, trace fine sand, trace coarse subangular to subrounded gravel, little fine subangular to subrounded gravel, trace to little silt, wet		-85 <del>-</del>
- - 255 -									-90 -



						<u></u>	101 00 -	T		
Proj	ect Name	∷ J-2 RAN	IGE					Location:		
Nort	thing: M	1: 4619565.0	05, M2: 46°	9565.10				Easting: M1: 375098.02, M2: 375098.02		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	C Condu	na Log PS uctivity 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 260 265										-95 - -95 - - - -100 -
- - - 270 -						SP		SAND: 2.5Y 5/4 light olive brown, medium grained, little fine subangular to subrounded gravel, trace silt, wet	-	-105 -
- - 275 -										-110 <del>-</del>
- - 280 - - -										-115 <del>-</del>
- 285 - - -									In-situ Soil	-120 - - - - -125 -
- 290 - - - - - 295								SAND: 2.5Y 5/4 light olive brown, medium grained, some fine sand, wet		-130 -
- - - - 300										-135 -
- - - - 305										-140 —
-										-145 <b>-</b>

Project N	ame: J-	2 RANGE					Location:		
Northing:		9565.05, M	12: 4619	565.10			Easting: M1: 375098.02, M2: 375098.02		
Depth ft (BGS) Blow Counts	Sample Interval	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	1	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 31U					SPGP		SAND: 2.5Y 5/4 light olive brown, medium grained,		-
- - - 315 -							trace to little coarse subangular to subrounded gravel, some fine subangular to subrounded gravel, trace silt, wet	-	- - - - - - - -
- - 320 - - -					BR		BEDROCK: Gravel sized angular fragments of black, gray, pink crysalline rock with granitic composition		155 -
- 325 -								-	160 -
- - - 330 -							Notes: 1. Well Depths MW-399M1: 248.68 ft (BGS) MW-399M2: 135.15 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths	-	165 -
- - 335 - -							MW-399M1: 10.00 ft MW-399M2: 10.00 ft 4. Screen Intervals MW-399M1: 238.16 - 248.16 ft (BGS) MW-399M2: 124.83 - 134.83 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 164.61 ft (MSL)	-	170 –
							Printed on 01/10/07		175

			RANGE						Location:				
			19279.38,		619279				Easting: M1: 375181.85,		5		
			D. L. Mah			Ele	evation	t (MSL	): M1: 177.31, M2: 177.31	@ Top PVC			
			Dual Air R			W	ell Deptl	n ft (BG	S): M1: 306.02, M2: 246.00	)			
			JAL ROTA			BH	H Depth/	Diam:	46.31 ft (BGS), 8.00 in. First Water ft (I		BGS): 110		
			Stainless S		ailer	Sta	art/End I	Date: (	03/24/06 - 04/06/06	Well Diameter	(in.): 2.50		
Cons	t. Materi	als S	SCH 80 P\	/C		Pr	oject Nu	mber:	35AY5301	Static Water ft (BTOC): 1		46	
Logg	Logged by: D. Melcher Reviewed by: Larry						nell, P	G	Completion: Flushmount	Date Measured	: 08/15/06		
Depth ft (BGS)	- Compo						USCS Class		Lithologic Description and Associated Lithographic		Well Construction Diagram	Elevation (ft msl)	
-											M1 M2	180 – -	
-0 - - -							SP		SAND: 2.5Y 6/4 light yellowish brown little fine sand, trace coarse sand, little gravel, trace coarse rounded gravel, t	e fine rounded		175 -	
-5 - - -											30000000000000000000000000000000000000	170 -	
- 10 - -											33333333333333333333333333333333333333	165 -	
- - 15 - -											30000000000000000000000000000000000000	160 -	
- - 20 - -											33333333333333333333333333333333333333	155 -	
- - 25 - -											00000000000000000000000000000000000000	150 -	
- - 30 -											300000000000000000000000000000000000000	145 -	
- - - 35 -											300000000000000000000000000000000000000	-	
- - - 40 -											300000000000000000000000000000000000000	140 -	
t												135 -	



Proje	ect Name	: J-2 RANGE					Location:		
		1: 4619279.38,		319279.43			Easting: M1: 375181.85, M2: 375181.	85	$\neg \uparrow$
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 45 - -								20000000000000000000000000000000000000	130 -
- 50 - - - - 55								30000000000000000000000000000000000000	125 -
- - - 60 -								00000000000000000000000000000000000000	120 -
- 65 - - - - 70						_		- 1000	110 -
- - - 75 -							SAND: 2.5Y 7/4 pale yellow, medium grained, some fine sand, trace coarse sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, dry	00000000000000000000000000000000000000	105 -
- - 80 -							GRAVELLY SAND: 2.5Y 7/4 pale yellow, some medium grained sand, little coarse sand, little fine sand, little coarse subrounded to rounded gravel, little fine subrounded to rounded gravel, dry	- 1000000000000000000000000000000000000	95 -
- 85 - - - - 90						_			90 -
- - - - 95							SAND: 2.5Y 7/4 pale yellow, fine and medium grained, trace coarse sand, trace fine rounded gravel, trace silt, dry		85 -

Proje	ect Name	: J-2	RANGE				Location:			
Nort	hing: M	1: 4619	279.38,	M2: 46	319279.43		Easting: M1: 375181.85, M2: 375181.	85		
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery	Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 1	) SOS	Lithologic Description and Associated Lithographic Symbol	Well Construc Diagrai	ction	Elevation (π msı)
- - - 100 -										30 – - - 75 –
- 105 - - -							SAND: 2.5Y 7/4 pale yellow, medium grained, some fine sand, trace coarse sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, dry		¥ 7	- - 07 -
- 110 - - - - - 115							GRAVELLY SAND: 2.5Y 7/4 pale yellow, some coarse grained sand, little medium sand, little fine sand, some fine rounded grael, little coarse rounded gravel, trace silt, wet		e Ā	- 65 – -
- 120							SAND: 2.5Y 7/4 pale yellow, fine and medium grained, trace coarse sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, wet		6	- - 00 - -
-						SM	SAND: 2.5Y 7/4 pale yellow, medium grained, some coarse sand, little fine sand, little fine rounded gravel, trace silt, wet  SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse sand, little silt, trace		5	55 – - -
- 125 - - -							coarse rounded gravel, trace fine rounded gravel, wet		5	- - 50 - -
- 130 - - -						SP	SAND: 2.5Y 7/4 pale yellow, medium grained, little coarse sand, little fine sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, wet		4	- - - 15 -
- 135 - - -									4	- - - 01 -
- 140 - -							SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, little coarse sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, wet		3	35 –
- 145  -									3	- - 30 –



Proje	ect Name	: J-2 RANGE				Location:		
Nort	hing: M	1: 4619279.38,	M2: 46	19279.43		Easting: M1: 375181.85, M2: 375181.8	35	
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval //Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- 150 - - - - - 155						SAND: 2.5Y 6/4 light yellowish brown, fine grained, little medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet		25 -
- - - 160 -						SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet	Insitu Soil	20 -
- 165 - - - - 170						SAND: 2.5Y 6/4 light yellowish brown, fine grained, some medium sand, trace coarse subrounded gravel, trace fine subrounded to rounded gravel, trace silt, wet		10 -
- 175 - - - - 180								0-
- - - 185 -					ML SM	SILT: 2.5Y 5/4 light olive brown, trace fine subrounded gravel, trace coarse sand, trace medium sand, trace fine sand, damp  SAND: 2.5Y 6/4 light yellowish brown, fine grained, trace coarse sand, trace medium sand, little fine		-5 - - - - -10 -
- - 190 - -					SP	GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium grained sand, little coarse sand, little fine sand, little coarse sand, little fine sand, little coarse rounded gravel, little fine rounded gravel, trace silt, wet		-15 -
- 195 - - - - 200								-20 -
-						GRAVELLY SAND: 10YR 5/6 yellowish brown, some coarse grained sand, some medium sand, little fine sand, little coarse rounded gravel, little fine rounded gravel, trace silt, wet		-25 -



Broid	act Name	o: LA DANCE				IVI VV =			_
Project Name: J-2 RANGE  Northing: M1: 4610270 38 M2: 4610270 43					Location:  Easting: M1: 375181.85, M2: 375181.85				
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class		Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)
- - 205 - -									-30 -
- 210 - - - - - 215						18888888	SAND: 2.5Y 6/4 light yellowish brown, medium grained, little coarse sand, little fine sand, little fine rounded gravel, trace coarse rounded gravel, trace silt, wet		-35 -
- - - 220 -									-40 <del>-</del>
- 225 - - -									-50 -
- 230 - - - - - 235						(333.333)	SAND: 2.5Y 6/4 light yellowish brown, fine grained, ittle medium sand, trace coarse sand, trace coarse rounded gravel, trace fine rounded gravel, trace silt, wet	internal services of the servi	-55 —
- - - 240 -								50A 00F	-60 <del>-</del>
- - 245 -									-70 <del>-</del>
- - 250 - - -					SM		SAND: 2.5Y 5/4 light olive brown, fine grained, little medium sand, trace coarse sand, some silt, wet		-75 -
- 255 -									



Desi	Project Name: J-2 RANGE Location:										
-				100=0.10							
Northing: M1: 4619279.38, M2: 4619279.43											
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	Lithologic Description and Associated Lithographic Symbol  Well  Construction  Diagram	Elevation (ft msl)				
- - 260							-80 <del>-</del> - -				
- - - 265 - -						SAND: 2.5Y 5/4 light olive brown, medium grained, little fine sand, trace to little coarse sand, little silt, trace to little fine angular to rounded gravel, trace coarse angular to rounded gravel, wet	-85 - - -90 -				
- 270 - - -							-95 - -95 -				
- 275 - - -						-1	100 -				
- 280 - - - - 285						SAND: 2.5Y 5/4 light olive brown, medium grained, little coarse sand, trace to little fine sand, little coarse angular to rounded gravel, little fine angular to rounded gravel, little silt, wet	105 -				
- 290						-1	110 -				
- - -					SP	GRAVELLY SAND: 2.5Y 6/4 light yellowish brown, some medium grained sand, little coarse sand, little fine sand, little coarse rounded gravel, little fine rounded gravel, trace silt, wet	- 115 - -				
- 295 - - -							120 -				
- 300 - -						GRAVELLY SAND: 2.5Y 5/4 light olive brown, medium grained sand, little coarse sand, trace to little fine sand, little coarse angular to subrounded gravel, little fine angular to subrounded gravel, wet	- 125 – -				
- 305 - -						-1	130 -				

Project Name: J-2 RANGE							Location:			
North	hing: M	1: 4619279.38,	M2: 46	19279.43			Easting: M1: 375181.85, M2: 375181.85			
Depth ft (BGS)	Blow Counts Per 6 Inches	Sample Interval /Recovery Sample Id	PID/FID	Gamma Log CPS Conductivity 2 6 10	USCS Class	:	Lithologic Description and Associated Lithographic Symbol	Well Construction Diagram	Elevation (ft msl)	
- 310 - - - - 315 - - -							GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little coarse sand, little fine sand, little coarse subangular to rounded gravel, little fine subangular to rounded gravel, trace silt, wet		-135 - -135 - - -140 -	
- - - - 325 - -							GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, little coarse sand, little fine sand, little coarse angular to rounded gravel, little fine angular to rounded gravel, trace silt, wet	In-aitu Soli	-145 - -150 -	
- 330 - - - - - 335 - -							GRAVELLY SAND: 2.5Y 5/4 light olive brown, some medium grained sand, some fine sand, little coarse sand, little coarse angular to rounded gravel, little fine angular to rounded gravel, trace silt, wet		-155 - -155 - - -160 -	
- - 340 - - - - - 345 -					SM  BR		GRAVELLY SAND: 2.5Y 5/4 light olive brown, some fine grained sand, little coarse sand, little medium sand, some fine angular to subangular gravel, trace coarse angular to subangular gravel, little silt, wet  BEDROCK: light gray granite		-165 - - - - -170 -	
- - 350 - - - - - - 355							Notes: 1. Well Depths MW-436M1: 306.02 ft (BGS) MW-436M2: 246.00 ft (BGS) 2. SCH 80 PVC Screens 3. Screen lengths MW-436M1: 10.00 ft		-175 <del>-</del>	
- - - - 360							MW-436M2: 10.00 ft 4. Screen Intervals MW-436M1: 295.47 - 305.47 ft (BGS) MW-436M2: 235.45 - 245.45 ft (BGS) 5. Slot Size 0.010 in. 6. Surface Elevation: 177.01 ft (MSL)		-180 - - - - -	